5 THE IDEAS PAGE



KAVAS KAPADIA

WHAT IS it about people in power that makes them want to leave behind monu-

mental works? The higher the position,

the larger the dream. Be it the great

Mughals, the Dutch settlers, the mahara-

jas of Rajasthan or modern leaders like

Lord Irwin, Jawaharlal Nehru or Jose da

Silva — they deemed it proper to construct whole new towns, attributing their moves

to political, cultural and/or economic

compulsions. After independence, India

has seen a few new towns come up —

The planning region of the proposed

between the cities of Vijayawada and

Guntur. The core capital shall occupy an

In order to deflect the focus from the fake surgical strike, the Indian government seems to have decided to keep the LoC under continuous fire power.

Chandrababu

Naidu's Brasilia

Andhra Pradesh CM is a man in a hurry. But

building a new capital is a complex task

—THE EXPRESS TRIBUNE



CR Sasikumar

A change called NeHA

The proposed National e-Health Authority, which will oversee digitisation of health information, could launch a digital health revolution in India. But safeguards need to be in place to protect patients' privacy



SATCHIT BALSARI AND TARUN KHANNA

TEN YEARS ago, it would have been impossible to imagine a world where tapping a piece of glass in the palm of your hand would allow you to watch a movie, order food, hail a cab, or transfer money without leaving your couch. Through companies like Ola, Flipkart and Chaipoint, Indian entrepreneurs have moulded Silicon Valley's best ideas to successfully meet local needs. Yet, a decade after the ways in which we search, navigate, buy, communicate and entertain ourselves have radically changed, health-services in India remain largely unaffected by the power of the internet. We archive doctor's prescriptions, labs and X-ray results the same way we did decades ago. Polythene bags with scraps of paper, EKG strips, and scans are carefully stored in our homes and diligently carried from one doctor to the next, from one hospital to the other — and this is the bestcase scenario. To date, the vast majority of Indians has no organised medical records, whether paper or electronic.

The Government of India is now scheduled to launch the National e-Health Authority (NeHA). A regulatory body, tasked with overseeing the digitisation of health information, NeHA holds great promise.

Imagine a health information network where all disparate contributors to health information are allowed to communicate with each other. Thousands of apps that constantly access information from our devices already do this — some with our knowledge, and others without. Our location, phone book, camera, voice, fingerprints, and even our habits and movements are all being tracked. This is facilitated through so-called application programming interfaces or APIs that allow sets of databases or software to communicate with each other.

Healthcare APIs would allow the doctor's iPad to talk to the chemist's cash register, and lab tests to communicate with the hospital's database. With selected access to healthcare data, thousands of apps could be developed for patients, doctors, researchers,

and policy makers — an app to remind mothers to vaccinate their children, push notifications to remind you to take your medication, or an alert that you are traveling to an epidemic belt. Scientists could search through hundreds of millions of records to find cures and validate current practices, policymakers would be able to conduct disease surveillance and formulate public health interventions, clinicians and patients would have timely access to their records.

This seemingly utopian health information ecosystem is not without rather obvious challenges: The poor uptake of electronic records by doctors in India, the lack of interoperability between systems and devices, and the legitimate concern for privacy, security and safety of medical data are all formidable barriers. Any health information architecture proposed by NeHA must therefore hardwire technical or legal solutions to these challenges.

First, to get doctors to adopt electronic

medical records (EMRs), any proposed systems must be easy to use and affordable. Careful attention must be paid to human-centered design and data minimisation (collecting only the data you need). In the US, insurance companies drove digitisation, resulting in the deployment of cumbersome billing tools that masquerade as electronic medical records, causing widespread workplace dissatisfaction and physician burnout. All too often, health information systems' design and implementation strategies do not include end-users. Doctors are more likely to voluntarily adopt solutions that improve workflow, efficiency and access to information. The lack of inter-operability poses another challenge. The highly sequestered systems in US hospitals are not portable and result in duplication of tests and wanton waste. Risk-averse institutions and outdated laws have stymied digital innovation in healthcare. Millions are now being spent on retrofitting these systems to make them inter-operable, as required by the US Affordable Care Act. Such retrofitting can be bypassed in India.

The very lack of entrenched legacy EMRs in India provides a unique greenfield to mandate an API-based ecosystem incorporating inter-operability and standardisation at inception. But the easier the data flow between entities, the greater the potential for abuse. Interoperability will need more than law and mandates. Substantial intellectual rigour must be devoted to building safeguards to protect the most vulnerable — the patients. The new law accompanying NeHA is expected to explicitly rest data ownership with the patients. We recommend a more nuanced strategy that

thinks of ownership in terms of control and access, so as to protect patients and providers without stymying research or policy making. Were India to adopt an API-based ecosystem, who will control what data? Who will have access to what data? When can the doctor access your health information and when can she not? Should the government be allowed to query hospital databases to monitor epidemics? And more importantly, who gets to make these decisions — computer algorithms, smartphone menus, committees, or a combination thereof?

Even with all the protective laws in place, such a system will take considerable time to populate. It needs to be seeded with large-scale initiatives to reach critical mass. Large private hospital systems are well positioned to open up their digital platforms to API-based solutions. Government schemes like the proposed National Health Protection Scheme (NHPS) have the power to reach tens of millions. Hardwiring an API-based architecture into the NHPS could tip the balance in favour of widespread adoption of health information systems. A common patient identifier would also be central to this architecture. Whether the Unique Identification Authority of India (UIDAI) becomes the de facto identifier, or whether it serves as part of a two-step verification process, Aadhar deserves serious attention given its near-ubiquity.

NeHA and regulatory laws that define India's health information landscape will have deep, long-lasting ramifications on healthcare delivery. Giving primacy to the needs of patients and clinicians; adopting human-centered design; abandoning traditional institution-based EMRs in favour of an API-based eco-system; and passing privacy laws in sync with these new technologies, can usher in an era of unprecedented growth in the scope, quality and safety of Indian healthcare.

The necessary ingredients are all present: A digital health greenfield, robust telecom infrastructure, unique ID authentication, and a large talented pool of IT professionals. Utilising them may allow India to shape healthcare delivery globally.

Balsari is a practicing physician and fellow at the FXB Center for Human Rights at Harvard. Khanna is a professor at the Harvard Business School and Director of the Harvard South Asia Institute. This piece is based on deliberations at the Exchanging Health Information Seminar

organised by the Harvard South Asia Institute and supported by the Radcliffe Institute for Advanced Study in Cambridge, MA

some well-known and successful (Chandigarh, Bhubaneswar, Gandhinagar, Navi Mumbai etc.) and others that are growing in comparative obscurity (Jamshedpur, Bhilai, Durgapur, Cyberabad, Bokaro etc.) The chief minister of Andhra Pradesh has added a town to the list. Chandrababu Naidu, after having lost Hyderabad to Telangana, decided to gift the state's residents a "people's capital", new town shall spread over 7,000 sq km

> area of about 212 sq km and the seed capital an area of eight sq km. The new capital will, besides fulfilling all the normal functions of a city, house the high court, legislature and secretariat buildings. An ambitious transportation plan is proposed with 135 km of BRT network, 127 km of expressways augmented with motorways, waterways, cycle tracks and walking paths. The completed network will finally cover about 938 km. The Krishna river cuts through the north-east part of the site, and like all rivers flowing north, has an auspicious significance to the "vaastu" guided plan for the new capital. Even though the CM would like to sell

this as a "people's plan", the entire process has not generated enough debate among the professional planning fraternity, architects, academic circles and least of all, in the general public. After some closed door meetings of the CM with Surbana International Consultancy from Singapore, and one "international enterprise", the entire planning process seems to be merrily romping ahead. The consultants have delivered a plan for all the three stages of the vaastu compliant "Master Plan 2050".

The CM has a few bright spots in his scheme of things. One such idea is that of land pooling. The farmers have been convinced that for every acre of land handed over they would get, in addition to the solatium, a residential developed plot of 1,000 sq yards and 450 sq yards of commercial property. They have already given up 37,000 acres of land. The worrisome part, however, is that some of the major design decisions of the Singapore plan stand to violate many of

the recommendations of the expert committee appointed by the Union home ministry headed by the late K.C. Sivaramakrishnan, to "study the alternatives for a new capital for the state of Andhra Pradesh". The committee explicitly discourages the urban use of the highly fertile land along the riverfront; it suggests that use of large chunks of floodable land along the river be avoided and cautions against largescale infrastructure/tall structures as the water table is high.

There are interesting similarities here between the goings on in Amaravati and Brasilia, the new capital of Brazil, when it took off in 1956. The then president of Brazil, Juscelino Kubitschek, decided to execute the already existing idea (proposed earlier by Jose Bonifacio de Andrada Silva) of a new capital for Brazil – an underdeveloped country – for national modernisation President Kubitschek was a man of action and a politician in a hurry. He not only declared the date to start construction but even fixed a date of completion for Brasilia, a few days before the expiry of his term in office. There are accounts of how the city was declared "complete" by using all available government servants and officers to double up as masons, electricians, painters to ensure, in many places only as a façade, a sense of "completion" by the due date.

We do not know how the Amaravati exercise will fare. For now, the very rosy picture of a prosperous tomorrow promised by the CM has prompted a few farmers to hang on to their land in exchange for a better return later, while others bitten by the property bug have decided to switch from farming to property dealing. A surge in income levels — due to the land acquisition process — has already witnessed several banks opening branches all over the region. With the selected farmland prices shoot ing up, it is understandable that some have questioned the need for acquiring such large tracts of land. Adding to the woes of the CM is the task of raising Rs 1,00,000 crore. The Centre has promised a meagre Rs 15,000 crore to begin with and more funds after examining the details of the proposals. But the optimistic CM believes that every drop counts and has a few innovative ideas to raise funds such as the "ebrick" scheme to donate towards Amaravati construction by purchasing a brick at Rs 10. Supposedly, this scheme has already mopped up Rs 2 crore.

History tells us that every new city has had its share of problems. Unless there was an imperial force — such as Emperor Akbar behind Fatehpur Sikri, or the might of the British empire behind Pretoria and New Delhi – new town projects get entangled in problems. Naidu is a man in a hurry. Even though there is an agreement on the time period of about 10 years before Hyderabad is officially retained as the capital of Telangana, he would like to complete the task at hand as soon as possible. That does not mean building any old capital but "a capital which is a hundred times better than Hyderabad". Let us wish him all the best.

The writer is former dean of studies and head of department, urban planning, School of Planning and Architecture

THE Urdu PRESS

ON DEMONETISATION

ROZNAMA KHABREIN, in its editorial on November 18, writes: "There is no doubt about the fact that the PM's decision (on the demonetisation of high-value currency notes) is worth welcoming and there is perhaps no one who supports black money. But the general complaint is about the faulty implementation. People feel that a good decision can lead to bad results due to the flaws in its execution. The intent of political leaders pointing fingers at the intentions of the government is for political advantage. They are not worried about the people's problems."

Siasat, on November 14, writes: "Modi did not do anything to bring black money from abroad. Instead, he provided an opportunity to those hoarding black money to legalise their black money and filled the government's treasury with taxes and penalties collected from them. When the earlier promises of 100 day-deadlines were violated and described as *jumlabaazi*, how can one trust now in a promise for 50 days...'

The daily *Etemad*, of Asaduddin Owaisi's MIM, in its editorial on the same day writes: "The Congress has for the first time got the opportunity to make the BJP-led NDA government lose the confidence of the people. The government has been warned that if it fails to control the situation, many more leaders would come out (in active protest)."

Jadeed Khabar, on November 20, regrets that the Supreme Court declined to take any action on several PILs but draws satisfaction from the apex court's observation that "what the government is calling a surgical strike is actually carpet bombing on the people."

TRUMP PRESIDENCY

THE DAILY Munsif, in its editorial on November 11, writes: "Americans elected Donald Trump as their President despite countless personal controversies around him. The primary reason for this might be that the people of the US are disgusted with the present condition of their country. Unemployment is at a high level and there has been reduction in many facilities provided by the government to the people. Also, the people want to take US out of international conflicts — something that Trump has promised. No substantial change occurred in the country during the eight-year presidency of Barrack Obama. During this election, the element of nationalism (qaum parasti) was dominant. Not only in the US, but also in Europe, including Britain, liberal politics is getting weakened, giving way to the domination of extremist nationalist ideologies."

The new law accompanying

ownership with the patient.

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explicitly rest data

Eminent economist and educationist Deepak Nayyar, in a commentary in Roznama Khabrein on November 13, writes: "The past 25 years has been the period of globalisation which has greatly affected the people. Undoubtedly, it has opened the doors of opportunity for some and has led to an increase in their capital. But for a larger number of people it has brought unemployment and poverty. There are a few victors here but there are more who have been the losers. The victory of Trump is a reaction to

globalisation." Inquilab, in its editorial on November 21, writes: "It was thought that there would be a change in Trump's thinking and action as President. But the type of people he has chosen for his team has revealed his motives. Most of them had pushed forward Trump's aggressive stance on many important issues during his election campaign."

Siasat, in its editorial on November 11, writes: "Now, with the arrival of Trump the thinking that the Islamic world is scared, is misplaced. Because the Muslim world will not be intimidated by Trump. In fact, the result in America has given a warning to become alert and vigilant."

OFF TRACK

RASHTRIYA SAHARA, in an editorial on the "very tragic" railway train accident (November 21), writes: "The cause of this accident can only be determined after an inquiry. Initial reports have suggested that a rail line fracture was the cause. If so, why didn't the railway safety team pay any attention to it?...There is need for immediate steps to lay new rail lines in place of the worn out ones and improving the safety infrastructure."

Inquilab, in its editorial on the same day writes: "Apart from the initial reports of a rail fracture, some passengers had complained that there was an abnormal sound coming from under a bogey and the train was stopped at least twice for this reason. This indicates an internal mechanical defect. Only an inquiry will reveal the real cause of the disaster. Laying of new rail lines, modernising signalling systems and other steps would, according to experts, require an investment about Rs 20 billion by 2020. Our leaders in power pay no attention to these necessities. They are dreaming of bullet trains. The actual priorities have to be attended to without any delay."

Compiled by Seema Chishti

LETTERS TO THE EDITOR

END THE BULLYING

THIS REFERS to the article, 'Fifty days

later' (IE, November 23). While lack of timely credit is certainly a problem faced by the SMEs, the sector has been crippled by an even serious problem: The denial of timely payments owed to them by big corporate customers. While many private sector clients are prompt in making payments, the biggest culprits are public sector corporations. While the purchase orders specify 30 days of credit, the SMEs chase these biggies upto 10 months after they

have made purchases. H. Chidambaram, via e-mail

REGULAR INPUTS

THIS REFERS to the article, 'Why trains derail' (IE November 22). Railways require both financial and intellectual inputs. Panels such as the Kakodkar Committee have provided inputs but we need such inputs on a sustained basis. While we would do well to learn from countries like Japan, we also need to keep the peculiarities of the country in mind.

Ravichandra Dighe, Mumbai

MISSING PM

THIS REFERS to the article, 'A battle on two fronts', (IE, November 24). If the PM feels that demonetisation was taken principally to curb the menace of unaccounted money, which would in turn help the poor, he needs to clarify his stand in Parliament. We were told that the move will cripple the finances of

LETTER OF THE WEEK AWARD

To encourage quality reader intervention, The Indian **Express offers the Letter of** the Week award. The letter adjudged the best for the week is published every Saturday. Letters may be e-mailed to editpage@expressindia.com

or sent to The Indian Express, B-1/B, Sector 10, Noida-UP 201301. Letter writers should

mention their postal address

and phone number. THE WINNER RECEIVES **SELECT EXPRESS**

PUBLICATIONS

militants, but 2,000 rupee notes were

recovered from a terrorist. Ajay Corriea, Vasai

TECH-SAVVY TERROR

THIS REFERS to the article, 'Black money and terror' (IE, November 23). The writer has not talked about "techsavvy" terrorists adept in the use of information technology. It is possible they circumvent the demonetisation measure by hacking in to online security

checks of banks.

Paarth Bhatnagar, New Delhi