

Lateral hires a great idea, need a Nandan Nilekani now

Between sacking officials and importing talent, big moves on bureaucratic reform; need a Nilekani-type thinker too

BETWEEN USING A relatively obscure rule to compulsorily retire bureaucrats of dubious integrity to inducting domain experts into the bureaucracy at fairly senior levels, prime minister Narendra Modi's bureaucratic reform is off to a good start. In just two days, the government retired 27 senior taxmen—12 from Income Tax and 15 from CBIC—under Rule 56(j) that allows the government to review the performance of those who attain the age of 50 or 55 or have completed 30 years of service and if need be, retire them “in the public interest”; in even Modi's first tenure, the government retired officials, but the action seems to be more focused this time around. Indeed, given the allegations against some of the bureaucrats, some of whom had been suspended for 15 years, it is shocking that the system was so helpless that they managed to remain in service for so long. While these bureaucrats were removed for their alleged corruption, the government would do well to start weeding out inefficient bureaucrats.

Besides this, towards the end of Modi's first term itself, the government even cleared the appointment of nine joint secretary rank officials from the private sector; one of them, Amber Dubei, for instance, was a partner in KPMG and headed the aerospace and defence division there. Given the paucity of domain expertise in the IAS, such lateral entrants should make a big difference, especially since it is at the level of the joint secretary that government proposals really begin to get shaped. And, though there is a 60% reservation level for all government jobs—including the 10% for the economically weak—it appears the government got over this by arguing that these jobs were “single posts” where “cadre reservation does not apply”. Going by a report in *The Indian Express*, the government is planning an even more ambitious induction of 400 domain experts at the deputy secretary level, though it is not clear how long it will take to do this.

While the impact of these lateral entrants will, of course, depend on how fast they get assimilated into the bureaucracy while, at the same time, retaining their different perspectives, Modi would do well to keep pushing the envelope. Since no joint secretary can make a difference if the secretary or minister feel differently, to make a quick and visible impact, Modi needs to look for a Nandan-Nilekani-kind of person; someone who can not only envisage something as out of the box as Aadhaar, imagine and help create a whole ecosystem of applications around it, and then convince politicians to back it even though it meant a big dent in the theft-ridden expenditure system that the political system patronised. Most important, apart from conceiving the system which some others can do as well, Nilekani actually managed to deliver it in record time. Getting outside talent at a senior level is critical since it is very easy, in government especially, to get swamped by the inconsequential and to get caught up in the procedural detail. What is needed is people who, Arjun-like, remain focused on the fish's eye, almost to the exclusion of everything else; given how far behind India has fallen, smart lateral thinking and the ability to take advantage of what technology has to offer is critical.

No action on IL&FS's babus

IL&FS thrived due to its bureaucratic cover, time to go after them

WITH THE ENFORCEMENT Directorate arresting former IL&FS CEO Arun Saha and K Ramchand who was the managing director of IL&FS Transportation Network (ITNL), and the government moving to blacklist auditors Deloitte and KPMG affiliate BSR & Co, it would appear action in the IL&FS scam is gathering pace. And, under an Uday Kotak-led board, IL&FS is close to concluding its first sale, that of 874 MW of wind power assets held through a joint venture (JV). While GAIL had emerged as the largest buyer of the assets, Japan's Orix Corporation, which owned 49% of the wind assets JV, invoked its right-of-first-refusal and will match GAIL's bid; in the bargain, the debts linked to the wind assets will be taken over by Orix. Over the next few months, as more assets get sold, it will be possible to get a better estimate of the size of the hole in IL&FS's balance sheet and the haircut that various lenders of its ₹100,000-crore debt will have to take; PSU banks lent ₹35,000 crore and PSU financial institutions another ₹9,000 crore.

What is odd, however, is the near complete lack of action by the authorities on either IL&FS directors or the various government officials who worked with it and, in a sense, ensured it flourished. As IL&FS's group debt rose 87% over four years between 2014 and 2018, and its leverage rose to a frightening 13, for instance, its risk management committee that was headed by LIC's managing director, Hemant Bhargava, met just once—in July 2015—in that period; LIC owns over 25% of IL&FS. IL&FS's independent directors who were on the risk committee included Maruti Suzuki chairman RC Bhargava and former shipping secretary MP Pinto; given the high-profile nature of the IL&FS scam and its capacity to wreak havoc on India's financial system, at the very least, the government should have banned these directors from serving as independent directors on the board of companies for a certain period, and clawed back the sitting fees they earned from IL&FS. IL&FS also operated several projects in 50:50 JVs with state governments and a senior bureaucrat from the state was usually the chairman of the JV, and this is probably what helped IL&FS to structure contracts in a way that benefited it more—in the case of Noida Toll Bridge, for instance, the way the deal was structured ensured the project that was to cost ₹408 crore in the early 2000s saw its costs escalate to ₹5,000 crore a couple of years ago (bit.ly/2Rm9IuS) Apart from this, a large number of bureaucrats have also been on its payroll at one time or another. Surely the role of these worthies also needs to be scrutinised and, where necessary, action be taken.

StandFIRM

India must not get cowed down by the US badgering it to be lenient in pulling up Deloitte, BSR

THE POSSIBILITY OF Indian regulators placing temporary bans on American audit firms, Deloitte and BSR & Co. (part of KPMG), for failing to disclose the true picture in the IL&FS case has the US trying to bully India into not acting against them. As per *Business Standard*, the US has advised India to forego strict regulatory action, saying a ban will retard investment inflows into India since investors depend on firms like Deloitte for investment consultancy also. Thanks to Deloitte's not relaying the true picture on the IL&FS loans, the banking sector is now saddled with ₹91,000 crore of NPA from just the IL&FS group firms alone. Invoking section 140(5) of the Company's Act, the Indian government has moved to the National Company Law Tribunal (NCLT) to impose a five-year ban on Deloitte and BSR from auditing and has instructed the Serious Fraud Investigation Office (SFIO) to initiate disciplinary action against statutory auditors before the ICAI and NFRA. Deloitte handles audits for top companies overseas and within India. Most companies prefer a single auditor for their overseas and Indian accounts—due to better efficiency and uniformity—and thus have started to make changes with regards to their auditors.

Deloitte global CEO Punit Renjen recently visited India and met some top officials of the Union finance ministry and the US ambassador, Kenneth Juster. Washington, trying to bolster the case for letting Deloitte get away with a slap on the wrists, cited the case of altered audits linked to KPMG in the US, in which the regulator there imposed a heavy fine on the consulting major rather than banning it even temporarily. However, India must stand firm and choose its own regulatory path. Even if it is two of the Big Four consulting giants, whose words hold sway over business groups across sector, that are in the dock, if India fails to assert its regulatory sovereignty now, it will set a very poor precedent. At the moment, Deloitte and BSR audit 342 listed companies—comprising 40% of NSE capitalisation—and 300 unlisted companies. India must not get cowed down by the US's unwarranted interference in the matter.



ON MASS DEPORTATION

President of USA, Donald Trump

Next week ICE will begin the process of removing the millions of illegal aliens who have illicitly found their way into the United States. They will be removed as fast as they come in

● INTER-STATE DISPARITY

THE CENTRALISED PLANNING STRATEGY APPLIED ALL THESE YEARS DID NOT WORK. ONE STRATEGY ACROSS INDIA CANNOT ADDRESS THE INHERENT DIFFERENCES BETWEEN STATES

Will the North and the South ever meet?

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inequality is unsustainable.

Further, a major difference between the southern and northern states are the youth populations. Fertility data from NFHS-4 shows the population in the southern states is ageing, whereas the youth bulge in the north and east is still substantial. As discussed in our previous *FE* article (bit.ly/2JM6u4f) the fertility rates in southern states are all under 1.8. Notable contributors to lower fertility are shown to be better education infrastructure and employment prospects in the south, especially for women. Southern states have significantly larger enrolment ratios in higher education, as discussed in our *FE* article (bit.ly/2WSFKWq). The variance in Gross Enrollment Ratio (GER) (see graphic) in higher education between southern and northern states on average is a significant 13.2 points in 2017-18. Among the more prosperous south-west states, Gujarat trails with a GER of 20.1 while Tamil Nadu leads with GER of 48.6 in 2017-18.

GER is lower in the north; but in absolute numbers, there is still a significant number of higher education graduates due to the large populations.

AISHE data shows that from the representative states discussed in the north, there have been a five-year total of 1.92 crore graduates from 2013-18—92 lakh are women (see graphic). Unfortunately, these are in regions where jobs for educated people are the least—most of the specialised jobs requiring graduates are in the south. Without quality employment prospects, educated youth in the north either opt out of the workforce or take up lower level jobs. The PLFS 2017-18 survey shows this is one of the reasons for low workforce participation among women—unemployment among urban women with secondary education or above is at 19.8%. States must prioritise providing educated youth quality employment prospects in their home states.

Above data and trends indicate that growth has been uneven across India. The centralised planning strategy which the Planning Commission has applied all these years before NITI-AAYOG has not worked. One development strategy deployed across India cannot address the inherent differences between states. In Modi 2.0, a well-

defined state-wise strategy supported by data is required to bring special attention to development in states that are below the national average, especially in the North and East India.

One of the critical investments to accelerate the development of lagging states is to focus on implementing education infrastructure, for both school and higher education, and then provide the educated youth quality employment prospects in their own states. In particular, instituting labour-intensive industries with intensive skills training in the populous states will provide employment on a large-scale. Madhya Pradesh has already started building labour-intensive industries with positive results. Apart from this, the need of the hour is to build infrastructure, improve governance and deliver services faster in these states.

Strategy must also focus on the strengths of each state and implement policy accordingly. For example, West Bengal can leverage its coastline and industrial legacy to develop into an industrial and trade superpower. Bihar, with abundant fertile land and labour, can focus on becoming a major producer of food and labour-intensive industries. With careful planning and implementation, each state in India can be specially developed. In the next five years, it is essential for Modi 2.0 to create specialised programs with centralised funding to take care of the needs of the underdeveloped states in the North and East, so they quickly rise up to the current all-India average in terms of human capital.

Variation also exists within each state. In Uttar Pradesh, the planned city of Noida is one of India's most prosperous cities, whereas several eastern districts like Chandrauli and Fatehpur have been identified as backward by NITI-AAYOG. Even within more affluent states like Karnataka, there is considerable variance between districts—the Economic Survey of Karnataka 2018-19, shows that Bengaluru district alone accounts for nearly two-thirds of Karnataka's GDP. As the Centre under PM Modi's able leadership brings focus to each state's development, a closer look at districts can direct policy and allocation decisions.

Accelerating development in lagging states and districts, can develop every state as a superpower in its own right. All of India's population can then participate in India's rise as a global superpower. The goal is to take each and every Indian along on our fast-paced journey towards becoming a \$10 trillion economy.

LETTERS TO THE EDITOR

BSR kept to rules

The report “*IL&FS scam: Audit firm noted lapses by IFIN but looked the other way*” (June 19) is misleading. The year ended March 31, 2018, was the first year that that BSR & Associates was appointed as auditor of IFIN and this audit was carried out jointly (as per the terms of appointment) with the predecessor auditors of IFIN. The concept of “evergreening” is a contentious and systemic issue, and hence a matter of constant dialogue between banks/NBFCs and RBI. The issue of whether fresh loans have been availed by borrowing companies to repay existing loans only with a view to avoid NPA classification is one that is ambiguous with regard to interpretation. Hence, it is very common to see divergent views on this aspect between a financial services company and RBI. When BSR & Associates signed-off its audit report for FY19, several of these classification issues were still under discussion between RBI and IFIN. BSR took into account RBI inspection reports and the ongoing discussions between IFIN and RBI. BSR also engaged in appropriate discussions to gather relevant facts from IFIN and also reviewed IFIN's letter to RBI. It also performed an independent analysis in respect of these transactions. Finally, it highlighted contentious matters to the Audit Committee of IFIN. This clearly demonstrates that no attempts were made whatsoever to avoid any reporting.

— Manish Gupta, on behalf of BSR

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Mark Zuckerberg faces plenty of competition in the race toward a cashless society, with other corporate and government rivals already well advanced in their plans

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Bloomberg



FACEBOOK LAUNCHED ITS ambitious new cryptocurrency, which targets 2.6 billion users and is backed by up to \$1 billion in funds. For the blockchain faithful, there was plenty of the usual stuff you see in these kinds of projects: A white paper, a non-profit consortium to govern the digital coins, geeky technical details on how transactions will be validated, and the promise of open-source code. But for consumers, who will decide ultimately whether or not Libra is a flop, there was only a slightly underwhelming hint of what it might actually be used for: A picture of someone sending money to someone else via a smartphone.

Even setting aside the various risks thrown up by the Libra white paper (financial stability, user privacy, and whether it could cope with hundreds of millions of daily transactions), you have to ask why it might be a compelling product. The service described by Facebook, namely sending money “as you might send a text message,” is already offered by plenty of other companies such as Alphabet Inc.'s Google, Apple Cash, PayPal Holdings Inc.'s Venmo and Circle, a peer-to-peer payments provider that lets you transfer traditional fiat currencies.

Indeed, Facebook lets you send cash through its Messaging app. It even had its own virtual currency before, called Credits, for the purchasing of content from within apps. It didn't take off.

Libra's sales pitch says that “in time, we hope to offer additional services for

people and businesses, like paying bills with the push of a button, buying a cup of coffee with the scan of a code or riding your local public transit without needing to carry cash or a metro pass.” It is true that you can't do that on every payments app. But Facebook founder Mark Zuckerberg faces plenty of competition in the race toward a cashless society, with other corporate and government rivals already well advanced in their plans. Sweden, for example, is on the road to becoming cashless as soon as 2023. The local mobile payments service Swish was used by about 60% of Swedes in 2018, according to a Riksbank survey. It has more than 6.7 million users in the country.

This isn't to write off Facebook's chances completely. Maybe its financial heft and vast number of users could turn something that's already pretty convenient today (money transfers and payments) into something ultra-convenient. Imagine a pot of Libra tokens that could pay directly for every goods purchase or app subscription without the need for any currency conversion or card payment. This would, though, depend on Facebook's ability to manage the huge technical challenge of designing a single coin that can be used truly anywhere.

To become a genuinely universal medium of exchange, it would need to get rivals like Amazon and Netflix on board. And why would they want to do Zuckerberg any favors? The idea that Libra is really at arm's length from his

social media empire of Facebook, Instagram and WhatsApp is debatable.

Facebook plans to lead the Libra consortium for the rest of 2019, and it will be at least five years before the blockchain technology that supports the tokens is completely decentralised. The ultimate dream of any crypto project is that the currency doesn't rely on a single point of control. But even if Facebook manages to get there, does Zuckerberg really want to embrace the dangers of a Wild West cryptocurrency? Bitcoin is a lesson here.

And what about Facebook's targeting of the “unbanked,” or those in the developing world struggling with volatile currencies? Bitcoin and its ilk promised to address the same problems, and have failed completely to help anyone other than speculators and criminals.

Zuckerberg's own patchy record on international payments should give pause too. WhatsApp Pay has struggled to gain regulatory acceptance in India, the world's top remittance market, because its data storage practices didn't meet national standards. Libra will have to answer a lot of similar questions about its financial structure and treatment of customer information.

Facebook has been on a mission over the past year to recapture the trust of its users. Libra certainly demands a lot of faith.

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ILLUSTRATION: ROHNIT PHORE

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Arbitration pe charcha

An institutional framework needs an 'arbitration dharma' and a code of conduct in place

and make it more time-bound, result-oriented and disciplined. However, India requires gigantic measures to emerge as a 'hub'. For example, in Singapore, the legislature has been quick to undo any conflicting or anti-arbitration decisions within months, sending out its pro-arbitration message loud and clear. This brings in certainty, predictability and stability, which is the essential bedrock for a 'hub'.

The government has echoed the same sentiment, and has given the need for making India an 'arbitration hub' and promoting ease of doing business the stature of a national priority.

Therefore, it is fundamental that the trio (judiciary, legislature and the government) creates the right turf and on-field conditions, much like cricket, for achieving its dream of becoming an 'arbitration hub'. This will send out the right message to the investor community that there is a strong, effective and time-bound dispute redressal process.

Second Dharma: Sanctity of contracts

Respecting the sanctity of contracts and honouring awards are vital to emerge as an 'arbitration hub'. The mindset has to be one of compliance—follow the contract and honour it, rather than finding ways to bypass/defeat it. This will also push India up on the ease of doing business rankings, so clearly it's a win-win.

However, an effective dispute redressal mechanism is not enough. It is equally important to reduce the number of artificial disputes. Numerous times needless disputes, particularly by PSUs, are pushed to arbitration where the arbitrator simply has to direct the parties to adhere to the terms of the contract. Therefore, a mindset that is geared towards upholding sanctity of contracts and the arbitral process and nipping it in the bud are critical for India to realise its arbitration dream.

Third Dharma: Independent and expert arbitrators

For arbitration to truly flourish, what is needed are neutral, independent and domain/sectoral experts who are qualified and competent to rule on the subject matter of the dispute. This would bring in much-needed commercial certainty, uphold the sanctity of the award/contract, and enhance the quality of decision-making.

Fourth Dharma: Effective enforcement of awards involving public bodies

Courts are highly cautious in enforcing awards against the government as they are swayed by unfounded nationalism and emotion. What is required is a no-nonsense approach and a mindset tuned towards compliance, adherence and enforcement. The answer lies in creating a culture of finality of arbitral awards so that a winner can get a touch-and-feel of the fruits of victory. The award has to be as good as an ATM, providing instant money and enforcement, or else the winner loses it all. This will inspire confidence and create a vibrant arbitration culture for resolving commercial disputes.

A step in the right direction

Undoubtedly, the tone has been set right and a step in the right direction has been taken. However, much more spadework has to be done for India to hold the 'arbitration trophy' and become a Singapore- or London-esque hub. It needs to be borne in mind that you don't become a 'hub' of arbitration overnight. The catalyst has to be government initiative, judicial and legislative support, and, above all, a conducive commercial mindset and environment. What we need is a well-thought-out road map to establish a credible and trustworthy institutional framework. Once the script

is in place, a robust institutional framework will automatically trigger/take off. So let's follow the recipe and get all the ingredients right in order to ensure that it leaves a good taste in the mouth.

For the system of arbitration to work efficiently and effectively within a specified time period requires a real and meaningful 'charcha' (brainstorming) amongst institutions, the government, users, practitioners and stakeholders. The turf and field have to be fully ready for institutional arbitration to take off, much like the Indian cricket team at the ongoing World Cup has to up its game to win on English pitches. What we need is enough 'match preparedness' to win back the cup.

A superstructure on a solid base is essential to meet the objective of making India an 'arbitration hub' and promote ease of doing business. This will ensure durability and longevity, which will serve India's interests well, and who knows it may just open doors to 'arbitration tourism'.

A superstructure on a solid base is essential to make India an 'arbitration hub' and promote ease of doing business. This will ensure durability and longevity, and who knows it may just open doors to 'arbitration tourism' as well

WHAT DOES IT REALLY take to emerge as a 'hub'? For starters, a conducive, vibrant and commercial ecosystem and environment which facilitates ease of doing business. The government's recent initiative and push for the New Delhi International Arbitration Centre Bill, 2019, to make India an 'arbitration hub' has to be seen in the larger and overall context, and not as a one-off measure. Take Singapore, the ideal benchmark, as an example. Singapore attracts a vast majority of its international commercial disputes of Indian vintage and connection. It has become the lead destination for dispute resolution as there was a clear vision and steady determination. This made Singapore the 'seat' of arbitration and a preferred venue. Such international best practices must be followed and a good 'copy cat' in the Indian

context is essential, which, like a magnet, would attract users and stakeholders.

Realising the unrealised dream of making India an 'arbitration hub' requires a holistic or 360-degree approach and comes with an 'arbitration dharma', i.e. its own set of cardinal rules and guiding principles:

First Dharma: A pro-arbitration culture backed by the trio

While there has been a sea change in the way arbitration is viewed today, we still require a proactive and supportive approach to arbitration. Courts particularly need to take a pragmatic approach towards 'minimum intervention and maximum execution', which will respect the arbitral process and honour arbitral awards.

The legislature had amended the Arbitration Act in 2015 and set timelines to increase the pace of arbitration,

Towards lower construction costs?

The recent Orissa HC ruling can pave way for realtors to claim construction-related input tax credits

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filed by Safari Retreats Private Limited—is a shot in the arm for the sector. The issue of denial of GST credit to commercial developments for lease was taken up by a developer of malls before the High Court in this case. The question before the High Court was two-fold: (1) Whether restriction of GST credits for development or construction of a property meant for lease is liable to be struck down as unconstitutional, or (2) whether the language of the restriction can be read down to infer a differential interpretation that allows GST credit? Declining to strike down the law, the High Court has categorically read down the restriction to hold that the restriction on construction-related credits shall not be applied to malls developed

for lease. The decision, amongst others, articulates a key principle of parity in the taxation of commercial spaces meant for sale and lease, both of which suffer GST on the output side.

Several questions now arise on the timing of this ruling, including its intent and ramifications.

First, why now under GST this has been a legacy issue since the service tax era? While this issue has been under representation/litigation in the past, this is a first-of-its-kind ruling on this issue and hence assumes significance in seeking to address a long-pending demand and concern of the sector.

The second could be about the coverage of this ruling including its applicabil-



ity to various types of commercial developments. The subject matter of contention before the High Court was a mall that was being developed for being rented out (where a direct nexus of GST payment on lease rentals was identifiable). While the ruling should, therefore, equally apply to other types of commercial properties (such as office spaces, warehouses, hostels and the like), it leads one to a question of whether a similar nexus can be derived for hotels and such other properties where the immovable property is integral to the service being offered; however, the type of revenue earned is not rental of the space per se. More difficult to justify may be a case of construction of a factory that is used to manufacture goods for sale.

Third, can this ruling be said to have a pan-India precedential value given it seeks to interpret and read down a central GST law provision that applies across the country? Being a ruling of the High Court, it should have precedential value with hopefully other courts following the same in the following weeks/months. Whether realtors who have rushed to have similar matters heard in other jurisdictional High Court(s) shall be equally successful, remains to be seen. While the possibility of the Revenue challenging the Orissa High Court ruling before the Supreme Court is expected and seems imminent, this decision throws up an opportunity to realtors in the commercial space to re-evaluate their tax positions of the past, present and

future, by leveraging on some of the principles laid down by the High Court.

The need of the hour is to see if this ruling can aid in any ongoing litigation on a similar issue under the pre-GST regime and further chalk out a plan to claim GST credits, at least for the go-forward period, if not the past. Options such as writ, refund application, representation, advance ruling, all present varying degrees of opportunity to commercial realtors. These opportunities to stake claim to GST credits need to be carefully weighed in against the time-frame expected for resolution of this issue before the Supreme Court, the chances of an ultimate favourable outcome vis-à-vis the time-frame for depreciation of these costs from an income tax standpoint, as well as potential interest and penalty exposure (on the credits available), in the event of a negative outcome. Another factor is potential obligations that could arise from an anti-profiteering perspective where credits, hitherto assumed to be locked or lost, are unlocked as a consequence of this ruling.

While these issues are being mulled over and actioned, this could well turn out to be a landmark ruling that paves the way for realtors across the country to claim construction-related input tax credits, resulting in lower cost of construction of leased spaces.

(Ketan Lohia, senior tax professional, EY India, contributed to this article.)

Using AI for public health

SANKALP JAIN & RHEA JOHN

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How does it work, and what is it good for?

PUBLIC HEALTH PROGRAMMES are complex and dependent on committed human resources, who are in short supply and fairly difficult to keep motivated. These constraints limit the impact of large-scale health programmes, often leaving out families that need these. The progress made in the field of artificial intelligence (AI) and machine learning (ML) in the last decade can bridge this gap.

The term AI was coined way back in 1957. But it's only in the last decade that we have seen an explosion of data, and data is the key fuel for AI and ML algorithms. As patient data and data collected through research is digitised, these algorithms can use it to detect patterns, and then assist health workers with early detection of warning signs as well as clinical decision-making.

So how can it be used?

From precision medicine, medical record storage and retrieval, medical report diagnosis, and robotics in clinical settings, to virtual consultations and personal fitness trackers that can be used at home, AI is making its presence felt:

Diagnostics and screening: Identifying or predicting diseases based on symptoms;

Health worker performance: Tracking the data captured by health workers, and using it to direct their efforts where they are most needed;

Improving client adherence: Identifying gaps in people's health-seeking behaviour and suggesting who might drop out of a health programme or course of treatment.

This work is being pursued by many players, including start-ups, research studies by academic institutions, and bodies like the ITU and WHO. The Astana Declaration on Primary Health Care identified technology as a key driver to improve accessibility, affordability and transparency towards achieving #HealthForAll.

What is it good for?

With the kinds of applications outlined above, AI and ML

can be an excellent tool for the health workforce, making their lives easier and their work effective—when a few conditions are met. It can automate repetitive tasks, figure out patterns in huge datasets, and aid clinical decision-making in specific areas, particularly radiology and pathology. What conditions health professionals using AI/ML should ensure?

1. Get the right data: AI and ML algorithms are smart, but only as smart as the data that feeds them. The principle of GIGO (garbage in, garbage out) is applicable here, too. Any bias in the data—method of collection, populations and contexts covered, human error—will make the algorithm biased.

2. Be ethical: AI users need to think about ethics and privacy standards while collecting data. There are limitations and grey areas here, and no globally-accepted standards have been developed. New developments like the EU's General Data Protection Regulation are forcing investments in data security and privacy, but as public health professionals it's important to think about ownership, access and use of people's health data, before collecting it.

3. Get everyone on board: Getting non-IT people to accept the outputs of AI and ML can be an issue. If algorithms and processes are complicated (they often are), try and demystify AI and ML for teams that work on the ground.

4. Be clear about your objective: What outcomes do you want AI and ML to help you achieve? Is this the best way to get that done, given your context and resources? Is it a realistic objective to try and achieve through a single tool? It's important to not fall in the trap of setting huge objectives (like finding cure for cancer), but aim for low-hanging fruits and start with something well-defined and achievable.

Where do we go from here?

AI and ML can seem daunting to those who don't dabble in technology, so organisations should get some tech experts on board. They can help define achievable outcomes, design usable systems, and navigate the complex maze of resources available to turn those ideas into reality. What health professionals bring to the table is their understanding of the needs and context, their on-ground networks that enable co-creation, and their experiential insight into how these technologies will affect the lives of communities and health workers. Through such powerful partnerships, we can harness AI to power the movement towards Health for All.

AI and ML can be excellent tools for health workforce, making their lives easier and their work effective—when a few conditions are met