

ILLUSTRATION: ROHINIT PHORE

RAJESH SHUKLA, MEGHA SHREE & P GEETHA RANI

Shukla is director & CEO and Shree is research fellow at People Research on India's Consumer Economy (PRICE). Geetha Rani is associate professor, National University of Educational Planning and Administration (NUEPA), New Delhi

Role of ICT in return on skills

Internet access is a potential enabler for high return on skills, and individuals using the internet regularly are actual gainers. For instance, if all-India internet users' income is indexed at ₹100, regular users are seen to earn ₹108 as against ₹78 for occasional users. Earnings of regular users with skill Level 4 are at ₹183 compared to ₹83 for occasional users, which is almost equivalent to the earnings of regular users with skill Level 1

DIGITAL INDIA HAS become the talk of the town in recent times. The government launched the campaign to ensure that all government services are made available to citizens via improved online infrastructure and increased internet connectivity. However, digital technologies have boosted growth, expanded opportunities, and improved service delivery. Along with the larger shift to a knowledge economy, the role of ICT (information and communications technology) in development could be seen as an enabler that facilitates existing channels of economically and socially significant information flow. Inevitably, the relationships between internet usage and returns to occupation and/or education have been evolved as a major area of research in the field of development studies. Various social scientists have also marked the stamp over the positive association between internet access/usage and well-being where individuals with internet access at home hold stronger ties with the economic well-being as well.

To this effect, the People Research on India's Consumer Economy's (PRICE) analysis of its comprehensive ICE 360° (2016) survey data—conducted in 60,360 households—provides key insights into the role of ICT in return on skills. The approach adopted here provides an alternative perspective on the quality of labour force, which depends on education, skill levels and technology. It brings out the issue with an underlying idea that ICT skills are developed through learning-by-doing.

This is enabled by internet access and frequent use, a prerequisite for participation in much of the activity in the digital economy. It further makes an effort to examine how the earnings through skills based on primary occupation get influenced over the usage of ICT.

The ICE 360° (2016) data shows that as skill levels rise, ICT usage too grows. Besides, the use of internet at the individual level also shows a positive relationship with return on skill. The internet-using individual earns more than double that of non-users. For example, if an average Indian earns ₹100, the ICT user earns ₹169, while the non-ICT user's earning is only ₹80. This is evident across all skill level types. Based on this, one can argue that internet usage plays a vital role

in increased earnings. The impact of the positive steps taken by the central government in ushering in digital technology in delivering services to citizens is already begun to be felt in a big way. Improvement in online infrastructure and internet connectivity are expected to boost economic growth, offer new opportunities and improve service delivery. Nearly 22.3% of the population are ICT users who are defined as those who have access to the internet and also use it for email, social networking, internet banking, shopping and accessing information related to work, entertainment, travel and other purposes.

Our findings divulge that although ICT users and non-users are distributed across all the socio-religious groups; however, ICT users primarily belong to the upper castes while non-users are characteristically the minorities.

Looking through the lens of educational qualifications, little more than three-fourths of non-ICT users have completed elementary education. This is nearly 40% in the case of ICT users. While 21% of ICT users are graduates, only 5% of non-ICT users have completed graduation. A majority of ICT users (40%) are in regular salaried employment followed by self-employment in non-agriculture (26%). By contrast, ICT non-users are mostly engaged in labour (42%), agricultural self-employment (24%), and only 15% are in salaried jobs.

Skills and ICT usage share a positive relationship. Our data reveals that nearly 8% of ICT users are at skill Level 4, which is four times more than that of non-users. On the flip side, a large majority of ICT non-users are at skill Level 1. In terms of earnings, if all individuals earn ₹100, then a skill Level 1 ICT user earns ₹136, while an ICT non-user earns just ₹67.

A similar pattern is observed among skill Level type 4 people: An ICT user earns ₹276 as against ₹161 for a ICT non-user. This establishes the fact that returns to ICT skills are higher than that for non-ICT. The gap between ICT users versus non-users rises with an increase in skill levels. What is interesting to note is that illiterate ICT users, across all skill level types, earn more than non-ICT users.

Deep dive analytics revealed that return to ICT skills is highly correlated with education. This can be seen from the fact that earnings of an ICT non-user graduate with skill Level 4 are almost equivalent to that of an ICT user graduate with skill Level 1. Earnings of the illiterate, as well as graduate ICT users, are more than average across all-India indexed earnings. Also, the difference between the earnings of a graduate and an illiterate is quite high among ICT users vis-à-vis ICT non-users.

Evidently, internet access is a potential enabler for high return on skills. However, mere usage alone does not indicate who are the actual gainers. To do that, let's take a look at the frequency of ICT usage. Individuals using the internet regularly are actual gainers. For instance, if all-India internet users' income is indexed at ₹100, regular users are seen to earn ₹108 as against ₹78 for the occasional users. Earnings of regular users with skill Level 4 are at ₹183 compared to ₹83 for occasional users, which is almost equivalent to the earnings of regular users with skill Level 1.

Although the links between use of ICT in access to particular skill/occupation is not discussed, yet usage of internet at individual level suggests a positive association with return on skills. Clearly, there is a high degree of compatibility with higher wages, skill levels and better education. It is clear from analyses that not everyone benefits equally from ICT usage and hence building resilience to this earning differential is crucial and also an important policy concern. There are many more nuggets and we have given you no more than a flavour.

(CONCLUDED.)

A majority of ICT users (40%) are in regular salaried employment followed by self-employment in non-agriculture (26%). ICT non-users are mostly engaged in labour (42%)

There are certain labour laws that have truly benefited the workforce, such as the fixed-term contract, where the contractual relationship between an employer and an employer is regulated

How labour reforms ease doing business

RP YADAV

The author is CMD, Genus Consultants Ltd



A pro-worker vision must be part of the future roadmap of India's development

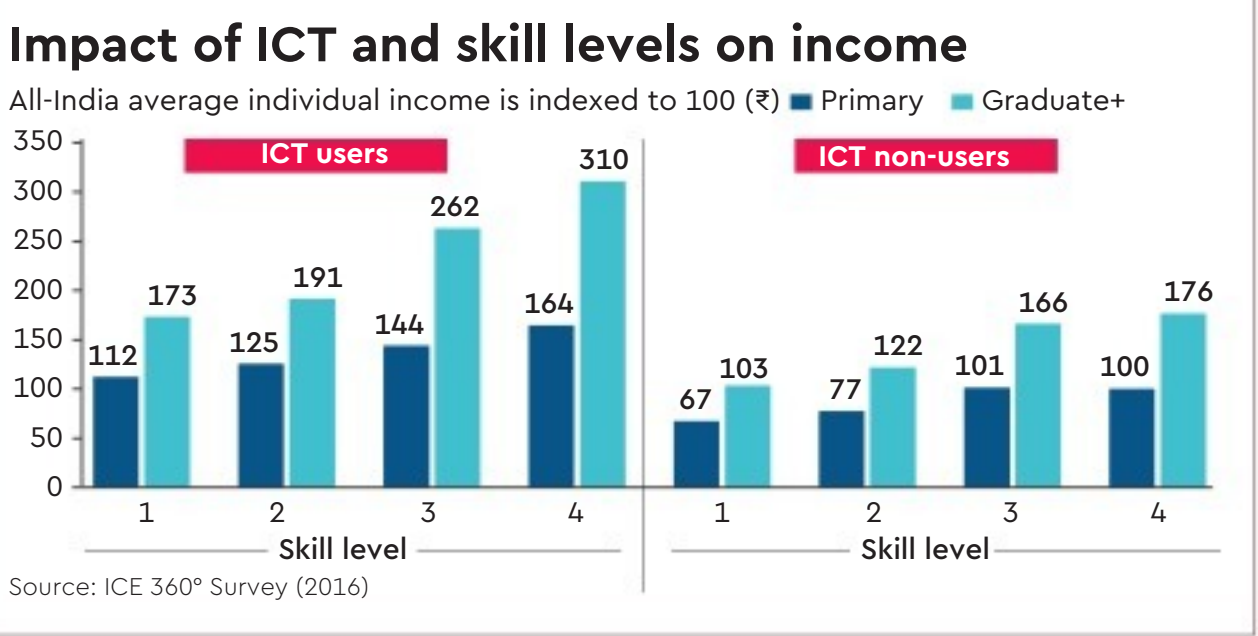
INDIA HAS BEEN known for its efficient labour and fertile lands, and of late the government has actively worked and helped raise the country's rank in the most business friendly countries list. This achievement and the future course is strongly dependent on labour laws and reforms that had been etched long ago by BR Ambedkar. Reforms like the minimum wages Act, dearness allowance, leave benefit, revision of scale of pay, employees state insurance Act, employees provident fund Act, industrial disputes Act and factories Act, followed by many other laws and policies for women and workers, have defined the base of benefits for workforce in India. But with the advent of globalisation, labour reforms have become argumentative.

The government has initiated certain labour reforms to enhance the social security and welfare aspects of the workforce, and these are helping provide sustainable livelihoods to the population that is largely engaged in the informal economy. The ministry has formulated labour codes under wages, industrial relations, social security and welfare, occupational safety, health and working conditions, by amalgamating, simplifying and rationalising the relevant provisions of the existing central labour laws. But, at the same time, more intervention and upgrade is required as outdated employment laws can hinder economic growth.

There are certain labour laws that have truly benefited the workforce, such as the fixed-term contract, where the contractual relationship between an employer and an employer (for a specific period of time) is thoroughly regulated by labour laws to ensure that employers fulfil basic labour rights regardless of a contract's form. The good part about the fixed-term contract is that it is aimed at creating a permanent contract, subject to the employer's right to terminate employment on reasonable notice (time) and for a valid reason.

The tax deduction benefits under sections 80D and 80C have also helped individuals save money. While under section 80D an individual can claim a deduction of ₹25,000 for insurance of self, spouse, dependent children and parents if they are less than 60 years of age (or ₹50,000 if parents are more than 60 years old), section 80C allows an individual who has already invested in LIC, PPF, mediclaim can claim the deductions and earn a refund on the excess taxes paid. Then there have been labour reforms that were presented in the Interim Budget 2019-20, such as liberalisation of the new pension scheme where the government contribution has been increased to ₹7,000 per month from ₹3,500 per month, as well as in the event of death of a labourer during service, the amount to be paid by the EPFO has been enhanced to ₹6 lakh from ₹2.5 lakh. Also, increasing the ceiling for payment of gratuity, introduction of the Pradhan Mantri Shram Yogi Mandhan, and boost to Anganwadi and Asha Yojanas have been great initiatives.

Labour market policies have also helped different groups of workers acquire the right skills. On an average, about 12 million people enter the workforce every year and the generation of decent jobs is not keeping pace with the demand. Also, most Indians do not have regular jobs in the formal economy, and there are differences in wages across regions and differences in the quality of employment opportunities. The growing population also puts pressure on labour markets, so economists and policymakers need to understand how globalisation is affecting both workers and national labour markets. In the Interim Budget, the finance minister affirmed that 50% of the GDP comes from the sweat and toil of 42 crore workers in the unorganised sector. This is a recognition of the role labour plays in contributing towards the country's economic progress. Let us hope that the pro-worker vision initiated this year will form a part of the future roadmap of India's development.



LOKPAL ACT

Ushers in a new era of justice

Lokpal can bring in an era of active citizen engagement, transparency and accountability, as well as justice and fairness

VISHAVJEET CHAUDHARY

Assistant director, Centre for Penology, Criminal Justice & Police Studies, OP Jindal Global University



Former Supreme Court judge Justice Ghose is the first Lokpal of India

AFTER NEARLY A decade of agitations, demands by the civil society, elections and court hearings, the first Lokpal has been appointed. Justice Pinaki Chandra Ghose, a retired judge of the Supreme Court, has occupied the position. He has had a distinguished career and is known for overturning Karnataka High Court judgment in the *Sasikala* case involving disproportionate assets.

The Lokpal consists of a chairperson (a retired judge of the Supreme Court or retired Chief Justice of a High Court or a person of impeccable integrity who holds at least 25 years of expertise in matters relating to corruption, public policy, etc), and other maximum eight members. Of these eight, at least four should be representative of minorities, scheduled castes, scheduled tribes, other backward classes and women. The appointment of the chairperson to this committee is made by the Prime Minister, the Speaker of the Lok Sabha, the leader of the Opposition, the Chief Justice of India or his representative, and an eminent jurist recommended by the chairperson and members. The Act also provides for a selection committee and mandates that the proceedings of the selection committee shall be transparent. The salary of the chairperson is to be equivalent to the salary of the Chief Justice

of India and the salary of members is to be the equivalent of that of Supreme Court judges. These are to be paid from the Consolidated Fund of India. Interestingly, on ceasing to hold office as the chairperson or member, the Act puts a prohibition, not only on being reappointed as a member but also on holding any other office of profit. Members cannot contest presidential, vice-presidential, state or central legislature or panchayat elections for a period of five years post ceasing to hold office. Additionally, the Act requires the establishment of an 'Inquiry Wing' and a 'Prosecution Wing'. The powers of the Inquiry

Wing take precedence over all previous laws and allow for the creation of the office of the Director of Inquiry who shall carry out preliminary inquiries into any offence alleged to have been committed by a public servant punishable under the Prevention of Corruption Act, 1988. The Prosecution Wing is to be headed by the Director of Prosecution who will act on the findings of the Inquiry Wing, and in case of sufficient evidence, file a case in special courts. For purposes of prosecuting public officials, the jurisdiction of the Lokpal includes all Members of Parliament (including the Prime Minister and Cabinet

ministers) and all central government employees. The trials will be held in special courts, which must complete them within one year. Failing that, reasons need to be recorded in writing explaining why the trial could not be concluded in the time frame and an extension of three months can be given. At the end of the three months, the trials should be completed, or again, to get an extension of three months, reasons should be recorded in writing. The total period should not exceed two years. The Act goes a long way in sharpening the fight against corruption and has some interesting features. First, it cuts through

layers of bureaucracy and permissions that currently need to be taken before putting elected members and officials on trial. These permissions, largely speaking, exist to ensure that elected members as well as the bureaucracy can carry out their work without unnecessary pressure. The requirement to seek permissions adds a layer of accountability. Nonetheless, these are also open to misuse. The committees in the Lokpal have to be extremely careful in ensuring that the safeguards—to ensure independence of the officials—are maintained. The Act, in this regard, does provide for a provision that will help in filtering out

vexatious complaints. In case of a complaint being found to be vexatious, upon conviction, the complainant can be punished for a term of up to one year and a fine of up to ₹1 lakh. Equally, the provision will have to be clarified so it does not inhibit well-meaning, but misguided complaints.

The judicial process in India is extremely thorough, meticulous, time-consuming. The *Sasikala* trial, for instance, spanned 18 years. The Lokpal Act provides for an expeditious disposal of complaints (30 days) and trials (maximum two years). The functionaries under the code and the committee have to be sensitive—the balancing of a fair, thorough and meticulous trial with the demands of concluding it on time needs to be done carefully. Well-established principles of criminal jurisprudence and due process must be balanced with the requirement for justice.

The Act ushers in a new era of justice. It is not only in line with demands from the civil society and various stakeholders in the country, but also shows India's commitment to her obligations under the United Nations Convention Against Corruption. The first few months of the implementation are bound to bring in teething problems. Nonetheless, it is hoped this will bring in an era of active citizen engagement, transparency and accountability, as well as justice and fairness.

Opinion

THURSDAY, MARCH 21, 2019

And now, the Lokpal wand of justice

With AAP planning to approach the Lokpal against prime minister Modi on Rafale, the fear of forum-shopping resurfaces

NOW THAT THE members of the Lokpal have finally been appointed, the Aam Aadmi Party (AAP), one of the prime movers of the move behind the Lokpal along with one-time mentor Anna Hazare, has said it plans to move the newly-constituted anti-corruption watchdog against prime minister Narendra Modi in the Rafale and Sahara-Birla diaries scam. Given the Supreme Court has already opined on the two matters, the fact that AAP chief—and Delhi chief minister—Arvind Kejriwal plans to raise the issue again raises fears once more of forum-shopping via the Lokpal and the body becoming a source of harassment; the fact that both the Central government and the Lokpal have jurisdiction over bureaucrats is seen as yet another problem area. Interestingly, while AAP joined other Opposition leaders in pillorying the government for delaying the appointment of the Lokpal, when Kejriwal came up with his Lokpal Bill, members of his party felt it was a diluted version of what Hazare had proposed and called it a 'Jokepal'.

The newly-appointed members of the Lokpal have the option of rejecting Kejriwal's complaint—under the law, two thirds of all members have to agree to initiate an inquiry into the PM—though the obvious USP of the body is the power to investigate ministers as well as the prime minister. Forget about initiating an inquiry into a sitting prime minister (think Rajiv Gandhi in Bofors), which government would initiate a probe into even a sitting minister; even though the then prime minister Manmohan Singh had serious reservations about A Raja's plan on telecom licences, he never dared to put Raja's decisions on hold. And while the initial discussions around the Lokpal gave it sweeping powers—it could cancel licences or contracts during even the investigation phase—many of these issues were sorted out when initial passions cooled.

Whether the Lokpal—and the Lokayuktas at the level of the states—will work remains to be seen, but its genesis is the belief that nothing that is run by the government can deliver justice; that is clearly problematic since, while the Central Vigilance Commission (CVC) that supervises the CBI is an autonomous body, this was not considered good enough. Also, till such time that the government appoints a separate investigation and prosecuting division for the Lokpal, it will work using existing bodies like the CBI. Why the CBI, which loses so many of its cases or the government lawyers, would work better under the Lokpal is not clear. And, it is more than a bit odd that, unlike the cases where all members are judicial, half the Lokpal's members will not be judicial members. Even more worrying is the stipulation that at least half the members of the Lokpal have to be SC/ST/OBC/minorities/women since there is no such stipulation for reservations among the judiciary. Indeed, those who framed the Act didn't believe these reservations would be adhered to by the government, so at least half the members of even the Search Committee for choosing the members will have to be SC/ST/OBC/minorities/women.

While the body independent of government is seen as India's best shot at curbing official corruption, it is not clear why such a body is prone to less corruption, especially since it is not clear who will probe the Lokpal's members who have been given fairly sweeping powers; members or the chairman can be removed following a Supreme Court inquiry that, in turn, follows a petition signed by at least 100 MPs. It is nice to see firm timelines in the Lokpal Act; the Inquiry Wing is to do its investigations within 60 days, the Special Courts have to complete their trial within a year. It remains to be seen how this will fare, even assuming the Centre makes good on its promises to speed up the process of appointments and providing enough court rooms for the Lokpal's benches—the newly-minted Insolvency Code, by way of example, has very tight deadlines, but most of these are being breached regularly. How the newly-appointed members of the Lokpal will tackle these obvious shortcomings in the law—and the blind belief that the government-run surveillance system is completely bust, even bankrupted—will now be keenly watched.

NCLAT has got it wrong

If RBI can't force them to provision, banks can't be safe

WHILE IT IS good news that the central bank has finally challenged the NCLAT order that prevents RBI from, without the NCLAT's permission, forcing banks to declare their loans to IL&FS as NPAs—and then make provisions for them—it is unfortunate that the NCLAT seems to be determined to stick to its position. In its last hearing, the NCLAT said RBI was making "it a prestige issue". As a regulator, it is RBI's job to ensure the banking system is safe; if it is not, crores of households are in danger of losing their life's savings if they are deposited in banks. For the banking sector to be safe, banks need to honestly state what their financial position is—if this is precarious, owners, like the government or private sector entities, bring in more capital—and, as part of this exercise, banks need to declare NPAs on time and start making provisions for them. Anything that interferes with this ability of RBI to ensure banks follow fixed rules creates a problem since the bank books will no longer reflect the situation on the ground. Sadly, it is not just the NCLAT, even the Supreme Court is examining the validity of RBI's February 12 circular that said banks have to report defaults of even one day on a loan and, if the default is not corrected within 180 days of this, the loan automatically goes to the insolvency courts.

As RBI told the NCLAT, while it is possible the reasons for IL&FS's defaults may be different from those for some other company, "the nominal principles governing the resolution of the stressed assets are uniform across various sectors...the banks' recognition of financial stress on their books, and the provisioning for such financial stress, needs to be sector-agnostic". It is IL&FS that is looking for a waiver at the NCLAT, and the government is battling in favour of other sectors like the power sector at the Supreme Court. If more and more sectors get a waiver and banks don't declare their loans as NPAs, how long will the system be able to carry on with dud loans? It is, in fact, because dud loans were carried on the books for so long—but disguised as performing loans—that the banking system is in the mess it is today. In even December 2015, RBI was projecting a 4.9% NPA level for March 2016 and a 5.2% level for September 2017 in the baseline scenario; the actual NPA levels, it turns out, were 7.6% in March 2016 and 10.2% in September 2017. While RBI has got more accurate in its predictions now, if RBI has to make exceptions due to the NCLAT/SC, this will get worse soon. Indeed, as RBI has pointed out to the SC, while it had already given 180 days to several promoters after their initial default, barring two or three cases, none had been resolved. Indeed, with Credit Suisse data showing that the share of total debt that is held by companies that have an interest cover of less than one is still a high 42%, it is just a matter of time before NPAs start rising again, especially in sectors like telecom and power. Courts like the NCLAT and the SC need to fully understand the implications of their ruling.

Chopped Chapters

The syllabus rationalisation exercise shouldn't become one of obliterating significant chapters in the history of Indian social reform

THE NATIONAL COUNCIL of Educational Research and Training (NCERT) has decided to remove almost 70 pages from its Class 9 history textbook, titled "India and the Contemporary World - I". Three chapters have been taken out. The first, Clothing: A Social History, is on clothing and how social movements influenced how we dressed. The second, History and Sport: The Story of Cricket, is on the history of cricket in India and its connection to the politics of caste, region and community. The third portion to be axed is the chapter titled Peasants and Farmers that focuses on the growth of capitalism and how colonialism altered the lives of peasants and farmers. This is part of the curriculum rationalisation exercise initiated at HRD minister Prakash Javadekar's behest to reduce the academic burden on students.

The choice of chapters to be axed, though, is curious—all three focus on caste and class, and the history of social hierarchy in India and power structures. They deal with how caste and class seeped into rules about who could wear what and why, who could play what games, and workers and peasants, their conditions of work under capitalism, the lives they led and their daily struggles. Although Javadekar's recommendation to the NCERT was to cut the curriculum by half across all subjects, according to *The Indian Express*, these proposed cuts have been majorly for content in social science textbooks, with minimum trimming for mathematics- and science-based textbooks. While trimming mathematics and science textbooks is difficult, redistributing content across standards isn't. On the other hand, summarily dropping portions based on peer-reviewed academic work from social science textbooks will impair the learning of children. Not imparting knowledge relating to how the majority of the oppressed and socially ostracised lower caste Indians have lived in the past is to deny teachings on how the same discriminatory forces govern our present-day society. It means obliterating the history of social reform in India. The syllabus rationalisation, if it proceeds in this fashion, will be less rationalisation, more refashioning.



IMPROVING WORLD'S PARLIAMENT

K Nagaraj Naidu, India's deputy permanent rep to the UN

A revitalised General Assembly must focus on substantive deliberations rather than spending considerable time and resources on procedural issues



NEED FOR REGULATION

IT'S TIME FOR A REAL CONVERSATION ABOUT THE INFRASTRUCTURE AND INCENTIVES THAT BIG TECH PROVIDES EXTREMISTS

We're asking the wrong questions of Facebook after New Zealand

LATE SATURDAY NIGHT, Facebook shared some dizzying statistics that begin to illustrate the scale of the online impact of the New Zealand massacre as the gunman's video spread across social media.

According to the social network, the graphic, high-definition video of the attack was uploaded by users 1.5 million times in the first 24 hours. Of those 1.5 million copies of the video, Facebook's automatic detection systems automatically blocked 1.2 million. That left roughly 300,000 copies ricocheting around the platform to be viewed, liked, shared and commented on by Facebook's more than two billion users.

YouTube dealt with a similar deluge. As *The Washington Post* reported Monday, YouTube took "unprecedented steps" to stanch the flow of copies of the video that were mirrored, re-uploaded and, in some cases, repackaged and edited to elude moderation filters.

In the hours after the shooting, one YouTube executive revealed that new uploads of the attacker's live stream appeared on the platform "as quickly as one per second."

The volume of the uploads is staggering—for what it says about the power of the platforms and our collective desire to share horrific acts of violence. How footage of the murder of at least 50 innocent people was broadcast and distributed globally dredges up some deeply uncomfortable questions for the biggest social networks, including the existential one: Is the ability to connect at such speed and scale a benefit or a detriment to the greater good?

The platforms are not directly to blame for an act of mass terror, but the shooter's online presence is a chilling reminder of the power of their influence. As Joan Donovan, the director of the Technology and Social Change Research Project at Harvard, told me in the wake of the shooting, "if platform companies are going to provide the broadcast tools for sharing hateful ideologies, they are going to share the



blame for normalising them."

Numerical disclosures of any kind are unusual for Facebook and YouTube. And there is credit due to the platforms for marshalling resources to stop the video from spreading. On one hand, the stats could be interpreted as a rare bit of transparency on behalf of the companies—a small gesture to signal that they understand their responsibility to protect their users and rein in the monster of scale that they built.

But Facebook and YouTube's choice to pull back the curtain is also a careful bit of corporate messaging. YouTube chose to share just one vague stat, while Facebook never mentioned how many views, shares or comments the 300,000 videos received before they were taken down. It is less an open book and more of an attempt to show their work and assuage critics that, despite claims of negligence, the tech giants are, in fact, "on it".

Most troubling, it is also a bid to reframe the conversation toward content moderation rather than addressing the role the platforms play in fostering and emboldening online extremism. We shouldn't let them do it.

Content moderation is important and logistically thorny, but not existential. Through the implementation of new monitoring systems and the constant tweaking of algorithmic filters, and robust investments in human



intervention and comprehensive trust and safety policies written by experts, companies can continue to get better at protecting users from offensive content. But for those in the press and Silicon Valley to obsess over the granular issues of how fast social networks took down the video is to focus on the symptoms instead of the disease.

The horror of the New Zealand massacre should be a wake-up call for Big Tech and an occasion to interrogate the architecture of social networks that incentivise and reward the creation of extremist communities and content.

Focusing only on moderation means that Facebook, YouTube and other platforms, such as Reddit, don't have to answer for the ways in which their platforms are meticulously engineered to encourage the creation of incendiary content, rewarding it with eyeballs, likes and, in some cases, ad dollars. Or how that reward system creates a feedback loop that slowly pushes unsuspecting users further down a rabbit hole toward extremist ideas and communities.

On Facebook or Reddit, this might mean the ways in which people are encouraged to share propaganda, divisive misinformation or violent images in order to amass likes and shares. It might mean the creation of private communities in which toxic ideologies are allowed to foment, unchecked. On YouTube, the same incentives have cre-

ated cottage industries of shock jocks and live streaming communities dedicated to bigotry cloaked in amateur philosophy.

The YouTube personalities and the communities that spring up around the videos become important recruiting tools for the far-right fringes. In some cases, new features like "Super Chat", which allows viewers to donate to YouTube personalities during live streams, have become major fund-raising tools for the platform's worst users—essentially acting as online telethons for white nationalists.

Part of what is so unsettling about the New Zealand shooting suspect's online persona is how it lays bare how these forces can occasionally come together for violent ends. His supposed digital footprint isn't just upsetting because of its content but because of how much of it appears designed to delight fellow extremists. The decision to call the attack a "real life effort post" reflects an eerie merging of conspiratorial hate from the pages of online forums and into the real world—a grim reminder of how online communities may be emboldening and nudging their most violent and unstable individuals.

Stewards of our broken online ecosystem need to accept responsibility—not just for moderating the content but for the cultures and behaviours they can foster. Accepting that responsibility will require a series of hard conversations on behalf of the tech industry's most powerful companies. It will involve big questions about the morality of the business models that turned these start-ups into money-printing behemoths. And even tougher questions about whether connectivity at scale is a universal good or an untenable phenomenon that is slowly pushing us toward disturbing outcomes.

And while it is hardly the conversations Facebook or YouTube want to have, they are the ones we desperately need now.

A cautionary note on spectrum auctions

The regulators and policymakers need to be aware that the short-term gain for the treasury might turn out to be welfare depleting in the long-run

V SRIDHAR & HEIKKI HÄMMÄINEN

Professors at IIT-Bangalore and Aalto University, Finland, respectively

THOUGH TRAI GAVE its recommendations on spectrum pricing way back in August 2018, we can only expect any action by the government during the latter half of the year due to the forthcoming elections. Since spectrum auctions have garnered bountiful collections for the government exchequer, it is worth pitching on a cautionary note, especially when the country is going to take a plunge into 5G and related technologies. Radio spectrum is a critical scarce resource required for operators to deploy mobile broadband, including 5G services. The past auctions, including the last one held in 2016, do not portend well. In the last auction held in 2016, there were no takers at all for the 700 MHz spectrum; only about one-fourth of the spectrum that was put on the block was sold. The total winning price was just about one-tenth of the sum of reserve prices fixed for all bands.

While the government plans for an auction, possibly later this year, including a 3.3-3.6 MHz spectrum as recommended by TRAI for 5G deployment, it is worthwhile to study how spectrum allocation and pricing have been happening around the world. The European Commission recognises efficient allocation and optimal use of spectrum as primary goals. However, a recent study by the GSM Association points out that over the 4G era (2008-2016), the price paid for spectrum increased 3.5-fold in many of the European countries, while average reserve prices increased over five-fold. The report also points out that most of the awards suffered due to high winning prices.

There is one country that is an outlier from the above and that is Finland. Finland is one of the European countries that departed from the rest in allocating radio spectrum for commercial mobile services using a beauty parade method way back in 1999. Though the country shifted to an auction-based method for

allocation of spectrum subsequently, the reserve price and winning bid prices have been one of the lowest in Europe. For example, Finland concluded auctions for 3.4-3.6 GHz spectrum in October 2018, with about 390 allotted to 3 operators at an average price of €0.024 per MHz per population. Compare it with the reserve price for 3.4-3.6 GHz spectrum recommended by TRAI of €2.5 per MHz per population (using purchasing power parity conversion) for Mumbai and the lowest of €0.25 for Himachal Pradesh.

There are several lessons to be learnt by the Indian regulator and policymakers from Finland. Firstly, maximising revenue from the sale of spectrum is not the primary objective for the Finnish government. Many researchers have pointed out that higher spectrum prices have resulted in higher consumer prices. In India, though this is not true, due to intense competition on one hand and the low price strategy of the new entrant, results are evident as incumbents are making huge losses.

In Finland, the government consistently sells spectrum for low prices while maintaining healthy competition, to promote technology investment, lower consumer prices, and fast data traffic growth. As a result, Finland has ten times higher data volumes per subscriber compared to other European countries. Though Rfio's greenfield entry strategy with a 4G-only network, and comparably under-used spectrum, has spiked the data volume consumption to a value very similar to that of Finland, the other incumbent operators lag behind.

Secondly, the release of usable spectrum in anticipation of demand is the need of the hour. Spectrum scarcity results in higher prices and uncertainty for the operators. For example, Finland allocated a substantial 390 MHz in the 3.5 GHz spectrum to three operators. India often puts on block insignificant

amounts of spectrum, especially the critical 800, 900 and 1800 MHz ones. As a significant departure, as per TRAI recommendations, it may be possible to put on block about 300 MHz of spectrum in the 3.3-3.6 GHz spectrum. This will provide a substantial contiguous spectrum block for each operator which is essential for high speed 5G networks.

In India, 4G deployment in rural areas is yet to happen. A sub-GHz band, especially 700 MHz, is very much required for the semi-urban and rural rollout of 4G services. The 700 MHz band with its superior propagation characteristics at reasonable prices is required for the operators to roll out 4G services in rural areas of the country. As per the latest TRAI recommendations, even in Himachal Pradesh, the reserve price is about €3 per MHz per population.

In summary, there has to be market-determined "truthful bidding" in auctions to obtain the desired results. It has been well proven by economists and game theorists alike that the simultaneous multiple-round ascending (SMRA) auction mechanism that is employed in India will derive the true value of the spectrum from potential buyers and is one of the methods advocated for allocating scarce resources such as spectrum. Further, the ranking rules, eligibility points assignment, and activity levels as designed in the auction platform are carefully drafted, thus minimising the possibilities of the winner's curse, collusive bidding and other such imperfect market behaviour. This theoretically strong mechanism works best when left to the market forces to play the game. Hence, TRAI and DoT must work together to set reasonable reserve prices in order to kick off the future auctions. The regulators and policymakers need to be aware that the short-term gain for the treasury might turn out to be welfare depleting in the long-run.

LETTERS TO THE EDITOR

Another building collapse

The collapse of an under-construction five-storey commercial complex in Dharwad is another instance of buildings that have crashed in recent years. Two people have perished and scores of others are injured or trapped in the accident. The toll would have been greater had Tuesday not been a weekly holiday. It is believed that sub-standard material used in the construction led to the crash. Besides, safety standards in building construction are increasingly being compromised and this is worrying. Conduct of safety audits for all old and new buildings must be made mandatory

— Ravi Chander, Bengaluru

Competitive populism

Unsurprisingly, the poll manifestos of two major Dravidian parties in Tamil Nadu for the upcoming Lok Sabha polls have a slew of populist measures to woo voters. Promises to waive off farm and educational loans by them do not qualify to be either pragmatic or effective given their huge ramifications on the already strained state exchequer. That the promise of waiving farm loans has become a popular promise of parties across the political spectrum to reap electoral dividends is indeed disheartening for it hardly addresses the ills afflicting the farm sector. Though Tamil Nadu has made rapid strides in human development over the years and remains one of the highly industrialised states of the country, the freebie culture being perpetuated by the two major parties has wreaked havoc. Measures that aimed at uplifting the poor and underprivileged are imperative but the freebie culture should be kept at bay. Competitive populist measures of two Dravidian parties to woo voters is nothing but devoid of any economic rationale

— M Jeyaram, Madurai

● Write to us at feletters@expressindia.com