

E-KYC TRANSACTIONS

Aadhaar usage by residents is witnessing continued progress across the country. In November alone, 28.75 crore e-KYC transactions were executed using Aadhaar, a 22% growth over the previous month.

By the end of November 2022, the cumulative number of e-KYC transactions has gone up to 1350.24 crore. Aadhaar e-KYC service is increasingly playing a crucial role for banking and non-banking financial services by providing transparent and improved customer experience, and aiding ease of doing business.

An e-KYC transaction is executed, only after the explicit consent of the Aadhaar holder, and eliminates physical paperwork, and in-person verification requirement for KYC.

Similarly in November, 195.39 crore Aadhaar authentication transactions were carried out, over 11% more than October. A majority of these monthly transactions were carried out by using fingerprint biometric authentication, followed by demographic and OTP authentication.

So far, cumulatively 8621.19 crore Aadhaar authentication transactions have been executed by the end of November 2022, indicative of how Aadhaar is increasingly playing a role in good governance and aiding welfare delivery to residents.

Whether it is e-KYC for identity verification, AEPS for last mile banking, Aadhaar enabled DBT for direct fund transfer or authentication, Aadhaar, the digital infrastructure of good governance, has been playing a vital role in supporting the Prime Minister; Shri Narendra Modi's vision of Digital India, and enabling ease of living for residents.

The Aadhaar Enabled Payment System (AEPS) has been an enabler of financial inclusion for those at the bottom of the income pyramid. Cumulatively, 1591.92 crore of last mile banking transactions have been made possible via the use of AEPS and the network of micro ATMs by the end of November 2022.

More than 1100 government schemes, programs and in the country run by both centre and states have been notified to use Aadhaar. The digital ID is helping various ministries and departments in the centre and at states in improving efficiency, transparency and delivery of welfare services to the targeted beneficiaries.



OFF 'D' CUFF

A Beautiful Universe

After receiving the 2022 Templeton Prize, Frank Wilczek interacted with The Times of India at a reception at Times Center, New York City. “Conceptual perfection in equations governs the physical world. Beauty helps us know how the world works — it is not a coincidence,” he says. “Any mathematical equation that is beautiful is bound to be correct.”

Does beauty also indicate our purpose in life? “Well,” he says, “the question of purpose is entirely different. I went in the scientific direction but never lost interest in the purpose of life.” Which is why he fulfills the criterion of the Templeton Foundation's selection, for “harnessing the power of science to explore the deepest questions of the universe and humankind's place and purpose within it.” Wilczek talks about the Threefold Way that could help us navigate the future(s) of humanity: What the world is, what it could be and what it should be — and here, science has an important role to play. “Turning what is, to what should be, is the purpose of life,” says Wilczek.

Known for his boundary-pushing investigations into the fundamental laws of nature, Prof Wilczek has transformed our understanding of the forces that govern the universe by revealing a vision that embodies mathematical beauty “from the magnificently large to the unimaginably small”. That is, a universe that is inherently beautiful in all its parts. He says the journey from what is to what should be, may not be a logical one, but it can elevate the discourse — didn't Einstein remark that imagination is more important than knowledge? Yogi Berra said it is tough to make predictions, especially about the future; yet, we need to imagine future scenarios to help make correct choices to turn what is and what could be into what should be, through understanding matter, life and mind.

Quantum computers in decades to come will become better at quantum computing; our ‘silicon friends’ can help extend our knowledge of life, but a tough question to crack is: How does mind emerge from matter?

When asked if mind is connected to soul — which is why karma is carried forward to the next

birth — the professor looks thoughtful and says he is unsure if souls and rebirth are part of our reality but thinks that mind emerges from matter as mind seems to be part of the physical world. Computer networks are mimicking the human brain's neural networks, and a computer's ‘brain’ can beat a human brain in a game of chess, for instance. The more power we have via technology and advanced knowledge, the more responsible we need to be while making choices for our common future.

What should we do with the wealth we create? While Dystopian futures are on offer, it is up to us to make Utopian choices that can conserve the beauty of the universe. Politics and economics play major roles in the choices we make. That is why the wealthy and powerful should be informed by the best ideas available, based on discipline and imagination with the intention of common good, for us to live a beautiful life.

Pantheist Physicist

Prof Frank Wilczek is Herman Feshbach professor of physics at the Massachusetts Institute of Technology, chief scientist at the Wilczek Quantum Center, Shanghai, and professor, Stockholm University. He shared the 2004 Nobel Prize in Physics with his mentor David Gross, and David Politzer for the discovery of asymptotic freedom in the theory of the strong interaction. That is, the closer quarks are to each other, the weaker the nuclear force between them so that they behave almost as free particles; but when the distance between them increases, they are more strongly attracted to each other. This theory is considered important for the development of quantum chromodynamics.

Wilczek was raised as Catholic, turned agnostic and is now pantheist. As a child, he wanted to study magic but chose Physics instead. As member, Scientific Advisory Board for the Future of Life Institute, he examines ways to mitigate existential risks facing humanity, particularly from advanced Artificial Intelligence. What does he do to relax, rewind? “I am learning to juggle,” he says, “and go for long walks in nature.” |

-Narayani Ganesh

■ ANSHUMALI

World has changed, truly, yes it has, thoughts, expressions, opinions and rather individuality has been adapted by the information technology surrounding us, that an individual is constantly busy in right projection of himself or herself is correct.

Cyberspace is a complex environment consisting of interactions between people, software and services, supported by worldwide distribution of information and communication technology and is the company/agency assuring the information. Information assurance may be understood as the measures/steps taken by the agency to protect and secure the data by ensuring the availability, integrity, authentication, confidentiality. This means inbuilt mechanism for restoration of information systems through protection, identification of issues and time based reaction capabilities.

Many times whenever we are adding or submitting our data into any application or website, the said application puts up a marker messages that the data shall be protected by 128 Bit encrypted key or else. This is one of the type of branding by the said application to assure the user that his/her data shall remain encrypted and safe with the application. It simply entails in keeping the confidence of customers, suppliers, partners and shareholders.

Information protection relates to mitigating risks through secure systems and architecture that eliminate or reduce vulnerabilities.

At the institutional level various processes are constantly occurring like cyber-warfare, espionage, sabotage, denial of service attacks etc. According to Richard a Clarke Cyber warfare may be termed as actions by a nation state to penetrate another nation computer or networks for the purposes of causing damage or disruption.

Most of the developed nations have strategized the defence mechanism of cyber issues, attacks, right in their respective military strategy, it primarily focuses on prevent cyber-attacks against critical infrastructures, reducing national vulnerability to cyber-attacks, minimize damage & recovery time from cyber-attacks.

Espionage software, sabotage software is deliberately prepared to achieve a specific purpose. There are also Denial of

service attacks, which is an attempt to make a machine or network resource unavailable to its intended users. The attackers particularly of Denial of service aim typically target sites or services hosted on high-profile web services such as banks, payments gateways.

In India, the Ministry of Electronics & Information Technology created the Indian Computer Emergency response team(CERT) in 2004 to thwart cyber-attacks in India, also a sub division, the national critical information infrastructure protection centre(NCIIPC) to thwart attacks against banking, telecom, defence, space and other sensitive areas.

Various hacking attacks on various government websites, banking sites, hospitals(recently on the servers of AIIMS Delhi), Grid Stations have been taking place since long. One has to understand that cyber attacks have their own economy where data varying on content has different prices. The sellers of that data get paid for the malicious operations and buyers are ready to negotiate the prices for various types of information which includes personal identifiable information like mass email lists, full identities, organisational information like intellectual capital/property, non-public internal data, internal operational details. Individual information like username and passwords, unauthorised withdrawals from accounts or charges against credit.

There are various types of cyber threats like Backdoor attacks where an algorithm is used to bypass the normal authentication or security controls. Direct Access attacks whereby an unauthorised user gaining physical access to a computer is most likely to directly copy data from it or may modify the operating systems, installing software norms, covert listening devices, eavesdropping , whereby private conversation is secretly listened typically between hosts on a network. Programs such as carnivore and others have been used by agencies, similarly spoofing is a fraudulent practice in which communications is sent from an unknown source disguised as a source known to the receiver. Phishing is an attempt to acquire usernames, passwords, cards details, this is mostly carried out by the email spoofing or instant messaging which directs users to enter details into a fake websites which looks identical to original one. Most common

form of cyber attacks are through malwares which actually is an inclusive term that covers all types of software like viruses, worms, Trojans, botnets etc.

Recently the "Cyber Swachhita Kendra" has been established by the Indian computer emergency response team(CERT) as a part of India's digital initiatives which is primarily a botnet cleaning and malware analysis centre.

Recently it was reported in the news that hackers have hacked into the systems of AIIMS and demanded Rs. 200 crores for allowing the access to the servers. Due to this all the records of the AIIMS has been held at ransom. Now we will talk about the countermeasures which are to be taken necessarily. The very first step is the creation of the design, means that the software has been designed from the ground up to be secure. Ideally as secure system should require a deliberate, conscious, knowledgeable and free decisions on the part of the legitimate authorities in order to make it insecure. Audit trails tracking system activity, so that when a security breach can be determined. After the security design comes the security architecture, which may be defined as the design artefacts that describe how the security controls are positioned and how they relate to the overall information technology architecture. These controls serve the purpose to maintain the systems quality attributes like integrity, availability, accountability and assurance services.

Threat prevention, detection and response like user account access controls and cryptography can protect systems files and data respectively. Firewalls are by far the most common preventive system from a network security perspective as they can shield access to internal network services, and block certain kinds of attacks through packet filtering. Many organisations go for vulnerability management which is a system of identifying and mitigating vulnerabilities especially in software. Subjects like data forensics have emerged which examines the digital media in a forensically sound manner with the aim of identifying , preserving, recovering, analysing and presenting facts and courses about the digital information.

Due to the numerous benefits brought about by technological advancements, the cyberspace today is a common pool

used by citizens, businesses, critical information infrastructure, military and governments in a manner that makes it difficult to draw clear boundaries among these different groups. The cyberspace is expected to be more complex in the foreseeable future, with many fold increase in networks and devices connected to it.

National cyber security Policy 2013 is a policy framework by Department of electronics and information Technology. It aims at protecting the public and private infrastructure from cyber attacks. The policy also intends to safeguards information related to individuals, financial and banking information and sovereign data. The Indian growth story is led by the information technology, in addition, this sector is also positively influencing the lives of its people through direct and indirect contribution to the various socio economic parameters such as employment, standard of living. It has played significant role in transforming India's image as global software solution provider. Due to the advancement of this sector the Government has been able to block the loopholes in the various government schemes. It has truly brought the knowledge at the door steps of every individual.

Individuals, groups form the building blocks of the society and have an important role to play in protecting the cyber space and particularly their own data, they should follow cyber hygiene while interacting on the internet, they should be aware of the ever changing threats and adopt the safety measures, learn to properly identify and report the threats in a timely manner, have an understanding on how to safeguard their own data and digital footprint.

Government both at centre and state are making considerable efforts in making the cyberspace safe and sound. Recently the Government of Jammu and Kashmir has released its Cyber security policy which defines various parameter of security apparatus in great detail and is a welcome step. However it has to be understood by all of us that it is the joint conscious effort at all the levels of society which will help us save our own selves from the unnecessary cyber attacks and thus help our beloved nation grow manifolds.

(Sources: Information from accessible domains of web).

G20 presidency: An opportunity to showcase emerging global leadership of India

■ ADITI TIKKU

After the conclusion of the first Sherpa meeting of India's G20 presidency at majestic Udaipur, now UNESCO world heritage city Ahmedabad is getting ready to host the first Sherpa meeting of Urban 20 (U20), one of the 10 engagement groups under G20 which prepares the urban agenda .

India officially assumed the G20 presidency on

December 1, 2022 taking over from Indonesia at a time when the world is grappling with a long list of crises whether it is geopolitical, job losses, extreme poverty or economic instability dragging the world in a state of turmoil. Amid such a sorry state of affairs how significant this presidency is going to be for India and what are some core challenges that India needs to deliberate on this is something to ponder on.

► What is G20 ?

The G20 or group of twenty is an intergovernmental forum that brings together the world's major economies like the USA, China, Russia, India, France and so on . This grouping comprises 19 countries and the European Union which itself consists of 27 European nations. It's pertinent to mention here that together the member nations of the G20 represent about 85% of the global GDP, 66% of the world's population and around 75% of international trade.

► India's agenda and the challenges underneath .

Talking about New Delhi's agenda at the G20 , India has clearly stated that it's focus during this year-long presidency will be on an "inclusive and action-oriented agenda". As per the statement of the PM Narendra Modi," India will make the G20 a catalyst for global change". The gravity of his words lies in the fact that India as a president of this prominent forum will have an opportunity to resolve some of the most pressing global issues and also boost it's significance on the

global stage .

Since India is heading G20 under a fragile ecosystem when the world has just come out of a pandemic and the war in Ukraine is still on, New Delhi needs a robust roadmap to tackle the following bottlenecks that lie ahead of this summit :

► " The Hindu " reports that the IMF has warned of higher recession risks and a darker global outlook in the coming years.

► The global fuel crises due to the ongoing conflict between Russia and Ukraine is another sticking point.

► Debt crisis that looms large mainly on the low income countries including uncertainty over the post pandemic economic recovery.

Food insecurity and climate financing are among some of the most immediate challenges concerning the world at this moment and need to be resolved at the earliest.

► Can G20 evolve into an alternative to the UNSC ?

The credibility of UNSC has been in question for several reasons whether it is the 'power play of veto among the P5 nations' , 'underrepresentation' as it does not include any African and Latin American nation and fails to take into account globally important and emerging economies like G4 or it's 'ineffectiveness' to address complex global issues.

It's been nearly three decades since India has advocated reforms at UNSC in order to make it more inclusive and representative but each time the demand is crushed by the dirty misuse of veto. Stating that the reformation of the UNSC is the most complex process of the UN system, India 's permanent representative to the UN Ruchira Kamboj has made it quite clear that the appeal is nothing but a wild goose chase. Speaking at a press conference at the UN headquarters she also underlined that if the UNSC refuses to make any

progress and fails to introduce reforms in the Security Council there is a possibility that other unilateral organisations like the G-20 will step up and take a more prominent role in the global affairs. Unlike UNSC there is enhanced representation in the G20 , it's more democratic and the overall partnership is much broader. Moreover , it's more uniform since there is no such luxury like veto power.

Leading the G20 summit for an year it would be a giant leap for India if it manages to utilise its goodwill to forge a consensus on wide range of globally important issues and at the same time take a conscious stance towards emerging as a voice of the 'Global South' as it has been advocating under it's guiding principle of 'Vasudhaiva Kutumbakam' meaning 'One Earth One Family One Future' which lays a greater emphasis on not leaving anyone behind .

► G20 meetings in the UT of J&K .

There are reports that India is planning to host some of its 2023 meetings of G20 in the UT of J&K , this is one such incident which will make India's presidency even more historic as it would be the first major international summit on the soil of J&K after the abrogation of Article 370 . Some are hailing it as a fantastic geopolitical masterstroke by India while others are wary of the serious security challenges it may pose for the country as Islamabad and Beijing have registered their strong opposition against any such attempts by India . Even if that remains the case and both Beijing and Islamabad stand in utter disregard to this proposal by New Delhi the western world will more staunchly side with India hence one way or the other India has managed to find a middle ground and has got nothing to loose .

(The writer is Media student at Central University of Jammu).

Will COVID Comeback Haunt India Again?

■ VINOD CHANDRASHEKHAR DIXIT

In view of the sudden rise in coronavirus cases in the United States, China, Japan, the Republic of Korea, Brazil, etc, India is now gearing up to combat the potential outbreak in the country. China has been witnessing a massive surge in the number of COVID-19 cases, especially after it dismantled its strict 'zero-COVID' policy. According to the Union Health Ministry, Covid-19 cases in India are increasing with a slight margin. The country has recorded 227 new coronavirus infections, while the active cases increased to 3,424. Since many people are vaccinated, this virus is now concentrating on the throat and the nose and replicating fast and transmitting also very fast. It reveals the fact that the poor adherence to safety protocols is driving the surge. The rise in COVID-19 cases has mirrored the pattern of the worst days of the crisis. The reckless and selfish behaviour witnessed around the country has drawn much ire. Why do some people dodge their responsibility in these difficult times? Medical experts have

flagged that many people not wearing masks and violating social distancing norms have contributed to the sudden spurt in novel coronavirus cases. A large number of people going out of their homes, either not wearing a mask or wearing it only on their chin. This has spread infection and that is one of the reasons we are seeing a spike in cases in the last several days. The laxity in not wearing masks, congregating in numbers, holding large functions and going out even for non-essential activities have all played their part in promoting the surge. We have also seen that in the number of political meetings and rallies being organised, with elections being held at the block, local body and assembly levels.

The pandemic has taken a toll on the mental health of a lot of people, and for those who live alone it is a cause of worry. The age-old mantra- "prevention is better than cure" is the solution in hand and is especially important for those who taught us the same, the senior citizens of our society. The elderly is at a greater risk against

COVID 19, and those with pre-existing problems are all the more vulnerable. The COVID-19 pandemic has demonstrated the interconnected nature of our world - and that no one is safe until everyone is safe. It is also observed that the younger population mostly starting to go out, posting pictures on social media about sitting at a cafe or a restaurant, which quite a dangerous trend is. The reasons for the sharp rise in cases could be mainly attributed to the severe decline in compliance of COVID-appropriate behaviour, especially in the use of masks and social distancing. The risks of getting COVID-19 are higher in crowded and inadequately ventilated spaces where infected people spend long periods of time together in close proximity. The worst thing that we see is even wearing a mask, even if the bus is crowded, not more than 50% of the people will be found wearing a mask. Even on the roads, in a crowded place many do not wear a mask and even though they stand close to each other.

Let us maintain "physical distancing" keeping at least 1 meter. This distance

helps to avoid direct contact with respiratory droplets produced by coughing or sneezing. Until a vaccine against COVID-19 is available to everyone, we have to continue to do the hard, albeit tedious, work of keeping ourselves safe and healthy-by wearing facial coverings, keeping our social distance, practicing good hand hygiene, and staying home. People must celebrate festivals, Birthday, Wedding Anniversaries at their homes, as this would help in breaking the Covid-19 chain and preventing a fresh wave of the pandemic. Let us make sure that we are well sanitized and follow all the necessary steps before you approach an elderly person to help. Wearing a mask, washing hands and maintaining distance are a must if you want to protect oneself. Don't we that if you are careless, walking out without a mask, then we are putting ourselves, our family, our children, the elderly in trouble. ? This is the time that we have to show the true value of our education and listen to experts and behave responsibly. Your sanitizer and your mask are like your shield. Why not to use It.?