Post Conference Report on Digital Governance for Growth: Using Data to Drive India Forward

The Dialogue, CKS and CENJOWS

12.06.2018

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Speakers and Moderators

1410-1420Hrs		**Welcome and Lamp Lighting Ceremony Introductory Speech by Vinit Goenka, Governing Council Member, CRIS, Ministry of Railways**
1420 – 1445 hrs		**Chief Guest Address by Hon'ble PadmaShri Dr. AS Kiran Kumar**
		KEYNOTE SESSION CONTINUES
1445-1500 hrs		**Lt General Dr D. B. Shekatkar PVSM, AVSM, VSM (Retd)(Chairman, CKS)**
1500-1515hrs		**Lt General V. M. Patil AVSM, PVSM (Retd)(Vice Chairman, CKS)**
1515-1530hrs		**Lt General Vinod Bhatia PVSM, AVSM, SM (Retd) Director & Former DG MO, Centre for Joint Warfare Studies(CENJOWS)**
1530-1545hrs		**Lt General Vinod Khandare AVSM,SM(Former DG,Defence Inteligence Agency)**
1545-1555hrs		**IPS Inderbir Singh, AIG Policy & Rules, Addl Charge Of AIG IT&T (Social Media) Police Headquarters, Punjab Police**
1555-1610hrs		**Mr. Ravinder Pal Singh, Director : Digital Cities and Mega Projects Dell EMC**
1610-1620hrs		**Mr. Unnat Pandit, Head, Atal Innovation Mission, NITI Aayog**
1620 – 1630 hrs		**Mr.Sanjaya Das - Former Additional Member Railway Board & Former MD, CRIS**
1630-1650 hrs		**Tea & networking Break**
1650-1720hrs		**Panel 1 – Digital India and the Analytics Opportunity**
Moderator		**Mr. Tabrez Ahmed - Chair, Start Up Committee, Indian National Bar Association**
Panelist		**Ms. Anubhuti Bhany Kaul - Govt. Relations, HP**
Panelist		**Mr. Ajay Kaul, General Manager and Head, Government Business, Dell EMC**
Panelist		**Dr. Avik Sarkar, Head, Big Data Analytics, NITI Aayog**

Panelist		Mr. Achal Sharma, Accenture
1720-1730hrs		Special Address by Mr. Rohan Mitra, Head, Government Relations, Adobe
1730 - 1740 hrs		Special Address by Mr. Nanda, Former Railway Board Member
1740-1805hrs		Panel 2 - Data Security and Privacy
Moderator		Mr.Kazim Rizvi, Founder, The Dialogue
Panelist		Mr. Ravinder Pal Singh, Director : Digital Cities and Mega Projects Dell EMC
Panelist		Mr. Amit Dubey - Deputy CTO, Tech Mahindra
Panelist		Ms. Khushbu Jain - Advocate, Supreme Court
Panelist		Mr. Digvijaysinh Chudasama - Deloitte
Panelist		Mr. Rajat Dhar, Finogent Adivsory
1805-1835hrs		Panel 3 - Internet Access, Connectivity and Literacy
Moderator		Ms. Zeba Warsi - Senior Corresspondent, CNN News 18
Panelist		Mr. Sarabhjot Anand - Founder, Tatrasdata
Panelist		Mr. Suresh Vaidyanathan - Govt. Relations, Alibaba
Panelist		Mr. Urich Kamath, Media Bug
Panelist		Ms. Uma Sudhindra, Board Member, IIM Vizag
Panelist		Mr. Rohan Mitra, Head, Government Relations, Adobe
1835 hrs		Valedictory - Mr. Vinit Goenka
1850 hrs		Vote of Thanks - Ms. Uma Sudhindra

Key Talking Points

The conference began with Padma Shri AS Kiran Kumar stating the importance of adoption of new and emerging technology in the new democratic age. He recognized the digital shift in today's economy and stressed upon the need to provide crucial government services –health, education, banking, travel, etc., in a digital format.

For the Government of India, adoption of digital technology is critical for the success of India, such as laying fiber optics network to enhance internet access. Technology is emerging as a driving force to improve governance in the country. Telengana is now Asia's No. 1 command center for real time governance. In order to track all events from natural calamities to government services, the command center must provide the necessary support. Similarly, corporations such as Google are enhancing the public Wi-Fi programs in India, with Indian railways now providing free access to internet. Assam is now the 400th railway station to receive such services.

ISRO has developed an app called NaVig that provides local optics and receives signals even with no connectivity, to guide fishermen.

A billion people will come under digital age and this creates many new opportunities in the digital sphere and digital infrastructural needs.

The Digital India campaign, widespread use of emerging new technology will lead to data explosion, and consequently valuable opportunities to manifest new data. Organizations and startups would need to seize this opportunity and harvest data accordingly. Aadhaar aims to achieve 100% coverage by 2020. India aims to achieve an 850 million internet user by 2022. To achieve high transportation speeds of 100gbps through satellite systems and data security, it is necessary that all stakeholders play their parts. Satellite system broadband is still attractive for it reaches places and has low latency application.

Using space technology, geospatial and atmospheric data can be provided in real time, contributing to improved weather predictions and climate predictions. Data can be made available to the forecasters as early as 180 minutes within getting the data.

Network of ground and ocean-based sensors can give more value. Significant changes to government monitoring and planning is based on all this data. Information about weather, land and oceans can greatly improve the working of the Ministry of Forestry, Urban Development and ISRO. Safety of flights can be improved by outfitting aircrafts with Gagan enabled receivers. Use of location-based services can further benefit fisherman by providing them with local language info, larger scale messaging service, and provide inputs for fisherman.

High frequency transponder systems can be used to connect specific locations through higher frequency links. Mobile healthcare systems in collaboration with NGOs can vastly improve cancer and mental healthcare capabilities. Space based systems enable the ability to prepare a knowledge base and widespread dissemination of skills. Space based system provides point to point quantum communication and encrypted data communication.

Data is Power

Information in today's world is power. Robust data, collected from varied sources, when analyzed correctly, becomes intelligence. Timely intelligence, especially pertaining to weather, corporate is important. Different people use different data for different interpretations and contexts. Predictability is based almost entirely on data. Data is such a precious resources that stealing of data among corporates occurs routinely. In the defense scenario, AI can help gather and process data and make quicker decisions, enlightened by human insight.

Whether a small vendor or a big corporate- everyone is relying on data in some form or the other. The reliance on data also has its cons- misleading data, propagation of incorrect data, etc.

Emphasis on Skill Development

We must focus on establishing cyber security hubs in country, cyber strategies, and mastering the cyber art for younger generation. Russia, US, China and Israel have cyber academies that have training programs in cyber strategy and warfare. In the Silicon Valley, 1/3rd of all engineers are Indian. Yet, India lags behind in digital technology.

In the 19th and 20th century, conventional wars were constrained by physical weaponry and destruction could be predicted. In the digital age, you can't see the enemy, their weapons nor assess the psychophysical damage that can be caused. There is unpredictability in every aspect- when, how, where, who, how long. According to the Global threat ranking, India is 3rd most vulnerable country. The ranking is based on 8 metrics- Malware, Spam, Bots, Network Attacks, Web attacks, Crypto miners. This calls for the need to enhance the skill set of Indian professionals in the cyber security space. India must also address the lack of talented manpower and resources in law enforcement.

In Aug 2012, the northern electric grid was off for 42 hours. Two electrical engineers were sacked and the chip in grid was finally supplied by China. In June 2017, ransom ware attacks occurred in Gujarat and Rajasthan. The banking system was not operable. Computer operators were blamed laptops were changed. Also in June 2017, the JNBT Navi Mumbai port was out of action for 18 hours. Hardware engineers were blamed. In April 2018, the Delhi government department websites were not functional. The Raksha Mantri proclaimed that the Defense Ministry website was hacked. Is there a problem with the hardware? This is no surprise as 97% hardware used in India is imported from China which means there is no accountability. We must find indigenous solutions and trust in our systems and people. Cdot's Dr. Vipin Tyagi and team are set to manufacture hardware in India. They need to be supported by government policy decisions. Self-reliance in cyber tools, strategy, policy and performance is need of the hour.

We must have dedicated cyber security cells equipped with latest tools to deal with cybercrime. Capacity building and skilling in use of emerging technologies becomes important. Regional cyber security labs should strive to improve response. Awareness among stakeholders should be pursued, for eg: in the banking sector and in case of banking frauds, adopting minimum basic security practices by bankers will go a long way. We must have a roadmap that incorporates infrastructural upgrades, cloud enhanced security, cyber security policies and framework and identification of critical areas like banking, tourism, etc.

Innovation in Cyber Security

Our cyber experts must work on innovative ideas post conference in order to find solutions to these pressing problems. We must concentrate on indigenous manufacturing of chips and computer motherboards and develop concepts and programs on data protection. 27% of trade occurs through a digital medium. For data to be available in India, we must focus on indigenous communication systems, railways, airports, seaports, electrical grids and government offices. Every IT engineer should be compelled to innovate in cyber tools and solutions. India lost out on the Industrial Revolution and was 20-25 years behind due to the British oppression. India cannot afford to miss the bus on cyber warfare and tools and strive to achieve cyber security goals by 2030.

A New India should be a transformed India- a prosperous, secure state with respect to cyber and data. There are 10 upcoming and emerging technologies-AI, Big data, IoT, Autonomous systems, etc. In 1 AD-India contributed to 51.5% GDP of the world, in 1940-1950, only 3% and now at 7-8%.

As an economic power, India must utilise its population, third largest army and natural resources and look to the future. The ISRO, armed forces, railways and the private industry must be integrated to accumulate all the resources. Indigenous data is power. Data is required for governance and administration. The Whatsapp buyout was for $20bn solely for the data, without a business model. The DARPA is the AI project of the US Navy. 60% of NASA employees are Indians. 27 ministries are looking at cyber security in their context. There is a need for a central autonomous body to govern cyber security laws and ad servers in India.

The need is to take advantage of data for healthcare, communications, security and controlling corruption and therefore, India must establish a National Cyber Policy and a National Cyber Commission.

It is important to understand the relationship of space with security and geospatial implications. The space platform must be utilized for kinetic and non-kinetic energy and in the military and non-military domain. Ecosystems must build a product that provides diverse opportunities and bridges the gap between the educated and the uneducated. The education of decision makers and policy makers becomes important

so that they can identify gaps and critical areas. To achieve this, we must generate emphasis on the appropriate research and development required. Daily routines are now virtual and going the cyber way. From education and health to movies and shopping, everything has moved to a digital platform. This connectivity also creates vulnerability.

The cyber security framework must meet the existing threats. The present legislation is weak- the entire cyber environment is only governed by the IT Act of 2000, and the implementation is even weaker. Hence, we need a strong robust legal framework and even better implementation.

Measure of performance lies in robust threat intelligence, design and development of responses, and planning and execution. Peter Drucker's "efficiency and effectiveness" principle must be adopted. While governing agencies have improved their scope in cyber security, there is lack of communication with law enforcement. The corporate world and law enforcement must be in synergy to facilitate training programs. Nuances of cyber security must be conveyed to the users of this digital ecosystem.

Using technology like SAARC satellite for communication, IoT will reap benefits across the country. Societal benefit will accrue in digital governance for better health, food security and livelihood.

Security and futuristic solutions will bring great benefits to the society. For example, SAARC satellites utilize the technologies present abroad and bring benefit in terms of revolutionary communication. Innovation from Indus Valley and innovation of the Indian culture must be mobilized to modernize, prosper and secure.

New India must strive to resolve grass root issues, make technology available to the farmer, and attain rural electrification to double farmer incomes. An ISRO model of communication satellite must be developed so that SAARC and ASEAN countries can benefit from India.

AI should not only be limited to cyber security but must be extended to applications in healthcare, law and order, homeland security, smart and intelligent mobility, disaster management, etc. We must aim for technological implementation not limited to India, but a united Bharatiya culture and then international – Gulf, ASEAN countries. Citizen 2030 should strive for technological implementation across borders and not limited to India.

Digital India and the Analytics Opportunity

Data drives transformation and digital disruptions. 20 years ago, information was all about computers. Now, speakers like Amazon Echo are capable of information dissemination. Back then, procuring information from the government was difficult and now open data portals can help citizens get the data.

Fitness bands collect uses data and use it to generate revenues. They can predict and alert behavior, fitness and health issues. Preventive health checkups are possible through improved ease and accessibility via Health ATMs.

People's perception and thought scope is very vast. The gap between government organizations and private sector is narrowing. With the controversy surrounding Facebook data and UIDAI, people realized how important their data actually is. Even when you are booking a flight ticket to Delhi to Bangalore, reminders, alerts and notifications will prompt you to complete your booking. Data sharing is not a choice anymore.

Government websites serve as online notice boards and medium of online transactions. Through citizen redressal mechanisms, the relationship between the citizen and the government has improved greatly. Tatkal passport services are facilitated through data sharing and an efficient system. The content will flow but the conscious call lies with the consumer. The passport system efficiency has improved by going online. The punctuality and processing has improved considerably. There is need to consolidate Aadhar data from a legal point of view. In 1969, railways introduced computers in the form of IBM 1401 machines to punch cards. The PRS system of Indian Railways is as big as scheduled booking of all airlines. It is the biggest payroll system.

Digital India will lead to infrastructural improvements, services and empowerment. It is important to understand the relevance of data. Quality of data trumps quantity. Data has to be packed with the right insights and analytics. The Federal government is grappling with the state of infrastructure, standardization and consolidation of data, and data security.

We stand to benefit from farmer specific insights, smart insights in production, predictive analytics, and productive resource management. We need a National AI strategy document. Analyze and time in dev of algorithm. It takes 20 years to get the AI algorithm. In the field of healthcare, chatbots exist but only in English. We need digital document collection in different languages. Recordings of Akashvani and Doordarshan and text translations should be made possible without contempt of data privacy. Corporate connections should be made for data availability. For example, Naukri and Monster jobs for employment trends.

Data can be used to prevent natural disasters, droughts, etc. Data driven technology can be used to place plastic recycling systems in identified places. It can also be used to improve traffic management systems. The common man, along with the government, academia and the private sector, should be included in the data driven mechanism.

Data Security and Privacy

Fragmented data must be consolidated. Healthcare data from childhood to adulthood must be consolidated. Aadhaar can help link all of this together. While data sharing is important, checks must be mandated to ensure data privacy. We need an IDPF – just like GDPR. Data on blockchain is immutable. Cambridge Analytica benefited from getting data of friends of friends. Data privacy and data authenticity must be upheld.

CKYC backend authentication, 2FA authentication, and OTP based verification has quickened the processing of financial transactions. In the US, minimum cyber security implementation is needed. Cyber audits of companies are routinely conducted. There is a comprehensive and standardized cyber security implementation protocol.

Internet Access, Connectivity and Literacy

Internet Access must be characterized by simplified interfaces, ease of access, language localization and dashboards. Considerable work is in progress with respect to vernaculars and using voice as an interface. The government should reach out to corporates for localized data and technologies. Digital India should be supported by system integrators and proprietors (like Adobe). Open source dependence is a narrow way to look at it. The skill deficit in industry needs to be addressed. Digital literacy must focus on understanding and skill building in urban areas and literacy in rural areas.