



INDIA SCHOOL ON INTERNET GOVERNANCE

2020-VIRTUAL EDITION

7-10 OCTOBER, 2020

ORGANIZED BY:

ISOC INDIA DELHI, KOLKATA, MUMBAI AND TRIVANDRUM CHAPTERS

HOSTED BY: ISOC INDIA MUMBAI CHAPTER

SESSIONS' REPORT



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**Internet
Society**

**MUMBAI CHAPTER
DELHI CHAPTER
KOLKATA CHAPTER
TRIVANDRUM CHAPTER**

DAY 1: 7 October 2020

Session Title: Inaugural Session

Time: 6.30 pm to 7.20 pm IST

Welcome Address: Shveta Kokash, President, ISOC India Mumbai Chapter

Keynote Address 1: Maarten Botterman, Chair of Board, ICANN

Keynote Address 2: Dr. Gulshan Rai, Distinguished Fellow, Observer Research Foundation

Moderator: Satish Babu, Chair, ICANN APRALO & President, APSIG

Name of Rapporteur: Dr.N.Sudha Bhuvaneshwari

The Inaugural session of the inSIG 2020 virtual edition began with the welcome address by Shveta Kokash, President, ISOC India Mumbai Chapter. She highlighted that how in spite of the pandemic, 56 fellows from 17 different countries have come together to attend 4-day event to be attended by 106 attendees and organized by a 20-member team from 4 ISOC India organizing chapters coordinating across 9 different cities of India. She welcomed all the fellows and lauded people's active participation in the virtual edition of inSIG during these challenging times. Shveta's address was followed by the first keynote address by Maarten Botterman, Chair of Board, ICANN.

Maarten began by giving a brief introduction of ICANN and its core functions. He then talked about ongoing initiatives at ICANN including Universal Acceptance (UA) that helps in building a digitally inclusive Internet supporting multilingual domain names. He also pointed out the various Indian languages are fed into the ICANN root servers that includes Tamil, Kannada, Bengali, Gujarati, Malayalam Odia etc. He shared how people can further get involved with ICANN and the Internet community.

The second keynote address was given by Dr. Gulshan Rai, Distinguished Fellow, Observer Research Foundation. Dr Rai highlighted the importance of being a part of the forum like inSIG that helps people to participate in the activities of ICANN. He emphasized how forums like inSIG can help people to learn about domain names, domain name systems, technical innovations, interoperability of technical innovative devices and using them smartly. He also informed the participants that participation in ICANN from India is very less and encouraged them to get involved with the community through forums like inSIG.

The closing address of the inaugural session was delivered by the moderator of the session, Satish Babu, Chair, ICANN APRALO & President, APSIG as he thanked the keynote speakers and the participants.

Thematic Session 1.1: Internet Governance: Perspectives on the Current and Future

Time: 7.30-8.00 pm IST

Speaker: Dr. Olivier Crepin-Leblond, Chair, UK Chapter of Internet Society (ISOC) & Past Chair, ALAC, ICANN

Moderator: Sneha Tambe, Vice-President, ISOC India Mumbai Chapter
Founder and Vice President, ISOC India Mumbai

Rapporteurs: Omkar Pawar and Dr. Balakrishnan Subramanian

Dr. Olivier's session started with beam of hope of the current scenario, describing about five major waves of Internet Governance (IG).

1) Wave 1 (1960s): Military Network- Started with the launch of Sputnik satellite by Russia

2) Wave 2 (1970s-1990s): Academicians

3) Wave 3 (1990s): World-Wide Web

4) Wave 4 (2000s): Increase in Internet speed; Rise of Google, YouTube etc.

5) Wave 5 (2010s to present): Use of mobile phones and applications; 4G and 5G; IoT

He discussed about the Internet Ecosystem and the three different models of ecosystem.

According to him, the Internet is successful in large part due to its unique model of:

- shared global ownership
- development based on open standards
- freely accessible development processes for technology and policy

He presented the evolution of Internet as timeline based on different era was discussed:

1969- Request for Comment (RFC #1) by Steve Crocker. These are standards of the internet

1973- TCP/IP with IPv4 by Bob Kahn and Vint Cerf

1985- DNS was introduced: MIL, GOV, COM, NET, ORG, EDU

1989- Military Network (MILNET) was separated

1990-91- Peering Agreements used for connecting the world. All text based services like Email, FTP, Gopher, WAIS, Archie and Telnet were launched

1991- Commercial Internet Exchange was created by PSINet, UUNET and CERFnet

1992- HTML was invented

1994- NCSA Mosaic, NetScape, WebCrawler

1995- Yahoo, Microsoft Internet Explorer, Alta Vista

1996- Ask Jeeves Search Engine (UK)

1998- Google

2005- YouTube

Olivier narrated the pragmatic definition of IG delineated by WGIG final report 2005 according to which, the IG is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision making procedures, and programs that shape the evolution and use of the Internet. He focused on the factors involved in IG such as human rights, socio-cultural, economic, development legal and cyber security. He also apprised fellows on the work, vision and mission of organizations like Internet Society (ISOC), IAB (Internet Architecture Board), IETF and ICANN

He concluded the session by discussing the various challenges in the domain of IG and what all needs to be done to meet these challenges.

Thematic Session 1.2: History of Internet Governance and the way forward

Time: 8:00 pm-8.30 IST

Speaker: Dr. Govind, Vice Chair of Asia Pacific Internet Governance, APSIG, NIXI

Moderator: Nandita Koshal, Treasurer, ISOC India Mumbai Chapter

Rapporteurs: Eeshani Kulkarni, Ashwathy Venugopal, Dr Ramalingam

Dr Govind began the session by asking the pertinent question of what is Internet Governance and why does Internet need to be governed.

He emphasized on the importance of Internet Governance by highlighting that:

- Internet Governance is the center of all human activities, and plays a critical role in the country's social, political, economic industry and commerce activities
- With the advent of the pandemic, the role of Internet governance has become central, as society is increasingly become reliant on the usage of Internet on a daily basis
- The Internet can negatively impact people especially with rise in fake news, Internet shutdowns, breach of privacy, data theft, cyber stalking, online hate speech
- Maximum number of Internet shutdowns have happened in India in the last few years.
- It is extremely critical to verify the information forwarded through social media

Dr. Govind took the attendees to the journey of the evolution of the Internet in India from setting up of Education and Research Network (ERNET) in 1983 to coming of Internet to India in 1995 to India becoming a GAC member and setting up National Internet Exchange of India in 2003 to evolution of multi-lingual Internet to India's increasing participation in ICANN, IGF and APNIC in 2015:

Dr Govind then went to explain the Internet ecosystem, its stakeholders, the Internet infrastructure with its various layers and the 7 clusters of Internet governance issues. These seven clusters are Telecom, Cybersecurity, Freedom of Expression, Jurisdiction, E-commerce, Access and Content Policy. Dr Govind informed that India's journey through IG started in 2003 after becoming a member at ICANN and setting up of NIXI and In 2015 India adopted the Multi-stakeholder model of Internet Governance.

He further opined that changing technology and geo-political situations will determine India's way forward in Internet Governance. Dr. Govind concluded by emphasizing that Improving industrial involvement, promoting start-up culture, enhancing the participation of academia and other stakeholders in Internet Governance would be the ideal strategic move to be adopted by India.

DAY 2: 8 October 2020

Special Session: Introduction to AP* (Asia-Pacific) Organizations

Speakers

- Aftab Siddiqui, Senior Manager, Internet Technology Society, APAC, ISOC
- Jia Rong Low, VP and Managing Director, Asia Pacific, ICANN

Moderator: Sabarinath Pillai, President, ISOC India Trivandrum Chapter

Rapporteur: Alicia Nabilla, Arun Kanti Howlader

Time: 14:00 - 14:45 IST

Aftab Siddiqui as the Senior Manager, Internet Technology at APAC, ISOC kickstarted the session by discussing about the Internet ecosystem, the scheme of Internet regulator as Asia Pacific Region is handled by ICANN, and registries of each country. He informed that not all countries have the same law and regulations regarding domain name industry. In some countries, the registry could also run as the registrar, so they can directly sell domain names. In Indonesia, where he is currently working for the vault, they are not permitted to straightforwardly sell domains names but rather they have enlistment centers that do the work.

Mr. Jia Rong Low, VP and Managing Director Asia Pacific of ICANN explained about the Internet in a detailed way, highlighting what makes the Internet works, the unique identifiers like protocol parameters, IP Addresses and domain names. He also further explained about the Internet engineering task force that sets of global standards for Internet protocols; the role of Regional Internet registries and how IP addresses are distributed around the world; the arrangements made by ICANN like uniform dispute resolution policy, where brand names are restricted jurisdictionally; new nonexclusive toll level area, where extended assortment of TLDs are accessible to thousands, and other such work carried by other agencies.

Thematic Session 2.: Introduction to the Core Internet Technologies

Speakers

- Srinivas Chendi (Sunny), Senior Advisor – Policy and Community Development/South Asia Liaison Officer, APNIC
- Champika Wijayatunga, Regional Technical Engagement Office, Asia Pacific (APAC), ICANN

Moderator: Sabarinath Pillai, President, ISOC India Trivandrum Chapter

Rapporteur: Rakesh Mohan Bhatt

Time: 15.00 -16:00 IST

While introducing the Core Internet Technologies, Srinivas emphasized on the policy and communication issues. He briefed about the journey of evolution of the Internet from first Internet backbone to early Internet (Telnet, File transfer, Email, Usenet- used for early social media, birth of TCP/IP). He further explored upon why being connected to the Internet is beneficial through examples such as online banking, stock market etc. He also explained about the working of Internet. the cloud, mobile networks, satellite wireless networks and copper/fiber network.

He further focused on the key Internet technologies and mentioned Internet Protocol (IP) and Routing. He explained how data is sent over the Internet in discrete packets and on the wire, where everything is digital in the form of packets. He highlighted the how due to security reasons every source and destination should have the unique IP address, He also discussed about the IPv4 and emerging protocol IPv6 with their characteristics. He also described the Regional Internet Registries (RIR), routers and communication between the routers, Internet Exchange Point (IXP), Resource Public Key (RPKI) and Route Origin Authorization (ROA). Lastly, he performed eight activities online by using on online quiz app and interacted with the participants.

The next speaker, Champika Wijayatunga explored the Domain Name System (DNS). He highlighted the layers of TCP/IP and OSI model. Here, he explained that how DNS comes in the application layer and how a kind of database is used by the DNS, in its architecture, in defining the names. He also explained with the help of figure about the root-servers and how they work.

He further discussed about the DNS components and recursive resolver role to compact many DNS servers. Under the DNS ecosystem relationship, NIXI is playing a key role for India, with the potential target points. Lastly, he emphasized on the best practices in securing DNS such as compliance with the standard.

In response to various questions raised by fellows on DNS protocols, Champika stressed on the need to understand the concept of 'Fully Qualified Domain Name' (FQDN). FQDN has a trailing DOT in the end that refers to the Root (i.e. Top of the hierarchy). e.g. mail.example.com. (notice the DOT after com),

Thematic Session 3: Emerging Internet Technologies, Trends and Security

Time: 16:15 – 17:15 IST (UTC+5:30)

Speakers:

- Dr. Konstantinos Komaitis, Senior Director, Policy Strategy and Development at the Internet Society.
- Ambassador Latha Reddy, Co-Chairman, Global Commission on Stability in Cyberspace (GCSC)
- Narendra Nath Gangavarapu, Joint Secretary, Security Council Secretariat, Government of India

Moderator: Pablo Hinojosa, Director, Strategic Engagement, APNIC

Name of Rapporteurs: Ajay D M, Dr. Gnanajeyaraman Rajaram,

In his opening remarks, Dr. Konstantinos stated that the digital divide has increased a lot during the COVID pandemic, and Governments should take necessary steps to increase the digital inclusion of the public. He introduced the Internet Impact Assessment Toolkit (IIAT) and stated ways and means to defend and promote the critical properties of a healthy Internet. He also affirmed that the Internet infrastructure has been resilient during the COVID times and was able to accommodate the exponential increase in user traffic.

Ambassador Latha Reddy introduced the principles, norms, and recommendations of GCSC to the fellows and stressed upon the importance of cyber peace. She re-emphasized that Internet infrastructure was successful in accommodating the user traffic during the pandemic and also discussed the role of the Internet during elections.

Mr. Narendra Nath stated that the security of products should be considered from the initial stages of product development and also mentioned that IoT devices can be used as potential attack vectors. He also stressed on the point that the trust deficit and financial fraud on the Internet has been critically increasing in recent times. Mr. Narendra Nath said that the pandemic has actualized the digital divide. He stated that managing, monitoring the use of data, and access rights are important for individuals and organizations. He also stated that data colonization is dangerous and the companies that have access to data grow stronger and the companies that don't have access will go weaker.

Responding to a question by Dr. Ramalingam Dharmalingam on the cybersecurity policy in India, Mr. Narendra Nath said that cybersecurity policy is being worked on in India, even before the pandemic and after COVID taking into consideration the remote nature of work, the policy is being articulated. Responding to the same question Ambassador Latha said, a mass public campaign is necessary on cybercrime, cyber hygiene, and steps to be taken during a cyber-attack. Adding to the recommendation by Ambassador Latha Reddy, Mr. Narendra Nath said that different means of the public awareness campaign is needed for the end-users in order to make them consume the recommendations made by governments and organisations. He added that the most of the awareness campaigns and recommendations are not consumed by the end-users. Adding to the same question, Dr. Konstantinos stated that the online environment is no different from the home environment and the same level of precautions should be taken in both.

DAY 3: 9 October 2020

Thematic Session 4.1: Internet Gender and Diversity

Speaker: Anriette Esterhuysen, Chair, United Nations Internet Governance Forum Multi-stakeholder Advisory Group; Senior Advisor, Internet Governance, Policy Advocacy & Strategic Planning, APC.

Moderator: Amrita Choudhury Vice Chair of APriGF, ICANN NomCom, President, ISOC India Delhi Chapter – Steering Committee Member, inSIG2020

Rapporteur: Shradha Pandey

Time: 14:30 to 15:00 IST

Anriette started the session by expanding the scope of the topic. She discussed the concept of Inclusion in the IG sphere which ultimately leads to bridging the digital gender gap and increasing Internet diversity. She informed that it was impossible to talk about digital inclusion without understanding exclusion as they are the two sides of the same coin. Digital inclusion cannot be separated from social, economic and political exclusion and they have to go hand in hand to understand the idea of equity in the digital sphere. The levels on which we need to bring in the idea of digital inclusion in the Internet Governance are:- access in terms of gauging the availability; affordability; language as it allows users to interact with relevant content; capability of an individual through digital literacy and skills, the final one being the content regulation.

Looking at the factors that contribute to digital exclusion, the analysis centered around social and economic equality as they have a gendered dimension. Another factor is the geographical area where the users are located due to the stark difference between global north and global south, national, regional and village level. One more factor that Anriette stressed upon was the market related powers that are at play while discussing gender inclusion. This has to be understood in the context of national regulatory frameworks of individual countries and there is a need to analyze whether they provide a level playing field to the people on the Internet.

Addressing various questions asked around the WSIS definition of inclusive information society. Anriette responded that while the definition stills looks equally elusive if not more today than on the date of drafting, that must not become a factor to hold back from working towards digital inclusion. An issue with the current approach to inclusion is that inclusion has become a way of assigning legitimacy in the multistakeholder context i.e. the more inclusive the process; the more legitimate it is. This can result in a tick box approach which is a shallow approach to inclusion. In response to the question of unequal distribution of power, Anriette informed that Open source softwares are a powerful way of building robust tech processes and systems however, the private companies have more power than open source advocates hence open source is not the norm on the Internet.

She concluded by enforcing that inclusion should not be about being politically correct but instead they must be focused on achieving the desired goal of making the policies work towards bridging the digital gender divide

Thematic Session 4.2: The Internet for Better Health and Well-being

Time: 15:00 pm – 15:30 pm IST

Speaker: Dr. Ashok Hemal, Chief of Uro-Oncology & Professor, Wake Forest Institute of Regenerative Medicine, USA

Moderator: Nandita Koshal, Treasurer, ISOC India Mumbai Chapter

Rapporteur: Lipasha Shrestha, Dr. Shivaleela Arlimatti

Dr. Ashok Hemal thanked the InSIG team and the rapid growth of technology, which made the positive change in health sector. He explained the 3 different ways of performing the surgeries i.e. open surgery, laparoscopy (key hole) surgery and robotic surgery (most recent). He also explained how the robotic surgery procedure is taken place and how it is different and effective comparative to the other two.

Robotics was first used in the field of Urology. He talked about the advances in robotics from Probot to AESOP to Da Vinci robot that provide advantages. Robotic surgery has also been advanced in children and performed in the youngest child on 1 month old but need to be very concerned and need to take several precautions. 2001- 2004, was the time where the most of the robotic surgery was developed while he was deployed in Henry Ford Hospital, India and performed the first robotic urologic surgery in India on April 29th 2005. First real transatlantic robotic surgery was done in New York where the patient was in France but there is still lot of problem issues regarding tele-surgery. There is a new medical revolution as the mini robotic which is 1mm in diameter and camera, sensor, drug delivery injection that can go through the vein, artery, intestine and blood vessels.

Talking about wellness he apprised about the Burnout syndrome that makes it nearly impossible for individual to provide compassionate care for their patients. This trend is also prevalent in young generation with technology background, law, academia, pharma, computer science, researchers. He suggested the burnout can be prevented by establishing wellness center as a quality indicator, starting a wellness committee and or choose a wellness champion, distributing an annual wellness survey and meeting regularly with leader and or staff to discuss data and interventions to promote wellness.

Tele-health or alternatively known as e-health or mobile health is a game changer during this pandemic situation as it's the Internet transportation of communication. It can be both virtual and verbal form of communication where the physicians intervene with the patient with his consent. It's going to be effective and accessible in the rural area as the patient does not need to visit the hospital for minor problems, especially in India.

While these are certainly revolutions in the medical field, Dr. Hemal also cautioned about the legal, ethical and confidentiality issues involved in human led robot surgeries and tele-health like due to difficulty in laying the ownership of a mishap. He also informed about the issue of lag in tele-medicine which can sometimes prove fatal and identified as a potential area where the Internet Governance can now make inroads. He concluded the session reiterating that engagement with the community is essential for sustaining the health of the community.

Thematic Session 5: Governance of Online Content

Time: 15:45–16:45 pm IST

Speakers:

- Prof. Sudhir Krishnaswamy, Vice Chancellor, National Law School of India University.
- Nikhil Pahwa, Editor & Publisher, MediaNama,

Moderators: Prateek Pathak, inSIG Alumnus & Volunteer, ISOC India Mumbai, and Amrita Choudhury, Vice Chair, APRIGF & Member, ICANN Nom Com & President, ISOC India Delhi.

Rapporteurs: Aroon Deep, Raghu Gagneja, Gayatri Kasibhatta

Prior to the session, pre-reading material had been made available to the fellows that consisted of three distinct case instances, modelled after real-world events. These simulated case instances, encouraging possible responses to complicated situations touching upon themes of freedom of expression, national security, individual privacy, et al —were particularly designed to test the thinking abilities of the fellows and to encourage a host of perspectives on dealing with the instances. The session was opened by Prateek Pathak, who introduced the speakers, and set the ground rules for the session; namely, that fellows should be respectful of each other's views, keep their remarks brief, be prepared to be called to provide a response, and informed that the examples used in the case instances were fictitious. The first instance consisted of a social media user accusing a film star of murder on a social networking site, and whether the former's post should be removed and his account on the platform deleted.

Prof. Krishnaswamy noted that crucial factors, such as whether the accusation was asserted as a fact or opinion; what are the real-world effects of such assertions; whether it was gender-based harassment and what are the remedies available to them, should be considered. Nikhil Pahwa felt that incorrect information wasn't necessarily illegal but wondered whether the platform should adjudicate matters of fact. He did highlight the Adjudicator's role that platforms are expected to play and the existence of a gap in accountability for the platform as social media companies may not be in the best position to adjudicate the facts from misinformation. Experts and fellows agreed that banning of the account is an arbitrary act and should not be carried out without sufficient legal grounds

The second instance consisted of a fictional Ayurveda-based drug that was marketed as a cure for COVID-19. A user endorses the product online, leading to the question, whether this now-viral endorsement should be considered as fake news? Fellow Ashish Agrawal said that the term "cure" needed to pass a high threshold. Fellow Nupur Vijn felt that the public health implications warranted a takedown. Mr. Pahwa diagnosed this instance as diagrammatically different from the previous one, since there do exist mechanisms in place to verify and authenticate this particular instance of unverified information. He favored that tweet should be taken down as it is demonstrably misinformation. However, Professor Krishnaswamy had a slightly different take on this. He believed that there weren't any specific guidelines that could suggest this instance of unverified information to be labelled as fake news. He spoke about Twitter guidelines, in particular, the coordinated harmful activity policy. Prof. Krishnaswamy felt that fake news can't be a takedown ground by itself on platforms like Twitter but coordinated misinformation may, however, be liable to be taken down, if demonstrable.

The third instance concerned a short video application from a foreign country analogous to China. The application has been banned by the domestic government due to its country of origin. A social media influencer laments the lack of comparable revenue from a competing app. The question is, thus, whether national security and user privacy are more important than end-user convenience and income.

The unequivocal stance of supremacy of national security and user privacy over end-user convenience found resonance amongst the fellows. Fellow Debarati Das expressed skepticism on bans while Fellow Aron Deep argued that impact on privacy and national security needs to be strongly demonstrated for such an extreme step to be taken.

Prof. Krishnaswamy in his remarks asked the question, 'where do we draw judicial authority in determining cases about fake news and defamatory systematics?' and argued that Section 69A of the IT Act, 2000 does not provide for app blocking, and speculated that the real-world equivalent of the app ban was done to advance geopolitical interests instead of user interests. Nikhil concurred that the move seemed politically motivated, but argued that democratic openness cannot be a weakness against non-democratic regimes. Prof. Krishnaswamy concluded that assumptions of full free flow of information were being challenged in recent years, and significant changes in the philosophy of the Internet were taking place.

Concluding Remarks: Professor Krishnaswamy in his closing remarks spoke about the changing nature of existing digital premise — and the fact that the free flow of information and ideas are under threat and subsequent need to rethink and address these concerns. These concerns relate to the New Media spaces and imagining ways in which they can be adequately regulated without impinging on the freedom of expression of the individuals. He also highlighted the need to change our viewpoint — transitioning from looking through a keyhole of a particular case to imagining the responses in general situations, so as to better the understanding and deploy effective policies. In the end, he highlighted the importance of users being informed about their rights and privacy that they give up while interacting with the Internet as a necessary step to prevent abuse of data.

Nikhil enumerated the following challenges facing present society:

- a. The existence of incorrect, but not illegal, information. And at the same time realizing that this segment of information can have its own set of consequences, small or otherwise.
- b. The need to develop solutions to tackle information that isn't technically hateful/inciteful but, again, can have consequences in the lives of individuals
- c. Social media platforms' dual role — as a facilitator of communication (intermediary) and publisher of content (liable its content).
- d. The ongoing debate regarding curtailing freedoms of these platforms and restricting the safe harbour protections currently in place. While simultaneously, the need to hold platforms responsible so that these protections offered aren't misused for exploitative purposes.

Nikhil concluded the session by emphasizing the need to retain safe harbor protections for the intermediaries, while institutionalizing community guidelines so that people do not remain just at the mere mercy and benevolence of the intermediaries.

Session: Perspectives-I

Time: 17:00–17:45 IST

Speakers:

- Dr. Ajay Data, Chair, Universal Acceptance Steering Group (UASG), ICANN.
- Dr. Sarbani Belur, Asia regional Coordinator, Community Networks, APC, Senior Research Scientist, IIT-Bombay.
- Subhashish Bhadra, Principal, Omidyar Network,

Moderators: Shveta Kokash, President, ISOC India Mumbai; Devendra Naidu, Steering Committee Member, inSIG 2020/

Rapporteurs: Nestor Boniche Gonzalez, Dr Clement Genty

The session begins with the welcome provided by Shveta Kokash and Devendra Naidu, who introduced the concept of the session Perspectives-I, that aims to provide a space to freely share the thoughts and insights on relevant aspects and perspectives on Internet governance and related topics. The session included the presentations by Dr. Ajay Data on Universal Acceptance - Technology Readiness; Dr. Sarbani Belur, on Community Networks and Subhasish Badra, on the Data Governance and Priorities for India.

Perspectives of Dr. Ajay Data: Dr. Data makes an introduction on the concept of Universal Acceptance (UA), a framework which is fundamental requirement to make the Internet a truly inclusive and multilingual digital space. It is a community initiative, formed by working groups with the intention of reducing gaps in tools and technologies. Universal Acceptance ensures that all domain names, including long new TLD and IDN, email addresses too, must be treated equally and can be used by all systems, devices and Internet-enabled applications. Technically, all domain names must be accepted, validated, stored, processed and displayed in the same way, consistently and correctly. UA does not develop standards, but it does develop good practices.

Perspectives of Dr. Sarbani Belur: Dr. Belur presents the biggest rural connectivity challenges in India, such as the unavailability of fiber backhaul, low ARPU (Average Revenue Per User) in India, the power outages or intermittent availability of electricity, the unequal supply of services by ISPs (for the aforementioned reasons) and the low demand for these services, mainly due to the lack of digital awareness of people. This makes the dependency on connectivity in rural regions high, and makes it less possible to access services such as telemedicine, health records, ATM's, or others as carrying last-mile connectivity has become a significant challenge. To carry out an infrastructure deployment plan, a connection is made at one point and from there an offline mesh network is deployed as if it were an online mesh network. It is important to mention that the community actively participates in the process, appropriating it, without losing its identity. They further share and reuse the infrastructure, uses solar energy, own hardware and software developments for Routers, community radio, intranet mesh network as a platform. to develop their own content for learning, in their own language, and e-commerce website for the

community. One of the great challenges they face is increasing the participation of women in these spaces and building technology.

Perspectives of Subhasish Badra: Subhashish shares perspectives on good practices, from the vision of both nonprofit and for-profit ventures. He talks about a formulation of the three global forces that at this moment influence the discussion of the issue of data governance and management. First being the rise of nationalism, which influences many countries regarding the policies that are generated, Second, being collection of more and more data from people through different means. The third aspect that influences the issue of data governance is the pandemic that we are currently experiencing and all its effects on the online life that we carry out today, and its impact on our institutions, policies and others.

India is a world leader in Internet penetration thanks to the number of people who access the Internet, have access to devices, and position of India being a hub for high-tech companies. In addition to this, there are factors that are part of India's technological development such as an active government and civil society, technological nationalism, and presence of a huge market for large technology companies. All of these factors contribute positively to India's tech ecosystem.

Despite this, there is a lack of regulatory structure regarding data. India now has the opportunity to not to be left behind in this aspect as it has high technological development at present.

DAY 4: 10 October 2020

Social Session: Virtual City Tour

Time: 11:00–12:00 IST

Speakers:

- All woman leadership team of ISOC India Mumbai Chapter
- Shveta Kokash, President, ISOC India Mumbai Chapter
- Sneha Tambe, Vice President, ISOC India Mumbai Chapter
- Nandita Koshal, Treasure, ISOC India Mumbai Chapter

Rapporteurs: Umesh Alle

Shveta, President, ISOC India, Mumbai Chapter, welcomed the fellows to the virtual city tour of “City of Dreams”. She boarded all fellows on an online vehicle from our respective places to take all the fellows on a wonderful journey of the virtual Mumbai city tour. Fellows landed on Chhatrapati Shivaji Maharaj International Airport Mumbai.

Nandita took us from the airport to Notable landmarks of Mumbai and provided insightful details about those landmarks. She first started with the famous landmark of Mumbai “The Taj Mahal Palace Hotel”. The Taj was incorporated by the founder of the Tata Group, Jamshedji Tata.

She then took fellows to Gateway of India; Chhatrapati Shivaji Maharaj Terminal (formerly known as Victoria Terminus); Marine Drive, famously known as The Queen’s Necklace; Asiatic Society, Mumbai’s Townhall and many more significant places. Nandita then passed the baton to Shveta to take the fellows to a tour of various beaches of Mumbai. She first took fellows to Girgau'm beach, Charni Road also known as Girgaum Chowpatty. Then she took fellows to her favorite beach, Dadar Beach. As she spends most of the evenings strolling on this beach. Then comes the Juhu beach, which is very famous in Mumbai.

After Beaches, fellow wwere taken into eatery section by Sneha. Here fellows were virtually served delicacies of Mumbai. Few of delicacies to mention were the famous Mumbai’s Vada Pav with cutting Chai at Tapri, Tandoori kebabs at Mohammed Ali Road, Bombay sandwich, Ice cream sandwich, unique Flaming Pizza, and many mouthwatering delicacies. Sneha also informed fellows about intercity transportation available in Mumbai. The first virtual ride was with Lifeline of Mumbai city and public transportation called as Local trains. Local trains are meant for fasting commutation. Another popular and frequently used public transportation is BEST buses. In private transportation, Mumbai has taxi and auto rickshaw popularly known as ‘Kaali Peeli’.

Shveta took over to explain about the SOUL of Mumbai city. The various celebrations that take place in Mumbai across the entire year. Govinda / Dahi Handi (human pyramid is formed to reach the hanging pot), Ganpati Festival (Ganesh Ustav, we worship Lord Ganpati), Garba / Dandiya during Navratri (A dance performed with decorated sticks, hitting each other in rhythm), Eid al-Fitr (Festival of Breaking the Fast. This day marks the end of the month-long dawn-to-sunset fasting of Ramadan) and Christmas (annual festival commemorating the birth of Jesus Christ).

The session ended with a Slido word cloud poll to celebrate the geographical diversity of the participants.

Thematic Session 6: Engaging with the Internet Engineering Task Force

Time:17.00-17.45 IST

Speakers:

- Abhijan Bhattacharya, Consultant & Senior Scientist, Tata Consultancy Services
- Dhruv Dhody, Lead Architect, Huawei and Secretary, IIESoc
- Dr. Manohar Bhuyan, Assistant Professor, Umea, University, Sweden

Moderators: Anupam Aggarwal, Chair, India Internet Foundation

Rapporteurs: Vimal Kumar and Ravipudi Srinivas Rao

The session began with the discussion of IETF and its role in Internet Governance (IG). The speakers explained the procedure and guideline of IETF membership for a newcomer in the role of their interest. The process of publishing RFCs and joining the working groups at IETF was detailed. QUIC(Quick UDP Internet Connection) was briefly described.

The speakers also informed about the Internet security research based on AI and machine learning; evolution of cellular technologies from 2G to 5G; softwarization of networks (SDN) and IoT. The speakers insisted on achieving guaranteed QoS through real-time delivery by minimizing the end-to end delay/latency and congestion. The speakers explained that QoS realization would affect all the layers of the protocol stack. They explained industry 4.0 by realizing the machine-to machine communication in augmented reality (AR)/ virtual reality (VR) in the 5G era. The speakers also talked about network slicing for IP and discussed virtual private networks (VPNs) and 5G requirements.

The speakers discussed the 5G setup and infrastructure in the UK and informed that companies like Ericsson ensure secure 5G services with low latency to the end-users. They emphasized on the use of AI and machine learning in the implementation of robust and reliable 5G services. Using the case of Huawei, which is the proposer of China's new IP initiative, speakers stressed on the importance of rethinking and reimagining the use cases of Internet design for the next 10-20 years to address questions like what will be bandwidth requirements in 2030? IP has been scalable till now, even during the COVID19 pandemic, will it be in 2030 or after that? Not enough experimental data is available, and the holographic communication model is to be explored. The session was concluded by discussing the IP shutdown and the International Telecommunication Union (ITU) role in this area.

In the end, Mr. Anupam Agarwal concluded that the role of IETF has changed over the last five years and the Indian contribution in it has increased. He said there is a need to bring the technical community together to face future challenges in IG.

Session: Perspectives-II

Time:17.45-18.30 IST

Speakers:

1. Glenn McKnight - Co-Founder ISOC Canada
2. Reena Garg - Head (Electronics and IT Department), Bureau of Indian Standards
3. Mathew Joji - Head Strategic Communications and Development, International Justice Mission, Kolkata

Moderators: Anupam Aggarwal, Chair, India Internet Foundation

Rapporteurs: Mohamad Afiq Ammar Tulos,

Perspective of Glenn McKnight: The speaker began his presentation by sharing his remarks on India's contribution to the publication of request for comments. He then commenced by sharing the journey of his professional career and exploring the field of Internet governance, Glenn spoke at length about the critical challenges faced by him and his team over the years. Furthermore, he provided a comprehensive picture of various organizations who have played a deliberate part in setting the infrastructure of the Internet and stress on the role of forthcoming generations in ensuring the competence of the infrastructure is not interfered with. As per Glenn, there needs be a more cohesive mechanism implemented in order to supplement the entry of more individuals at Internet Corporations for Assigned Names and Numbers (ICANN) and therefore, his advice for new individuals was to gain more insights by working with Internet Governance Forum which encapsulates a broader mandate. Lastly, Glenn concluded his presentation by speaking about his new project, Virtual School of Internet Governance. The objective of the respective organization is to make a formal representation of the importance of Internet governance to people from all cohorts of the society.

Perspectives of Reena Garg. Reena represented Bureau of Indian Standards, which was established in 1947 as a central standard authorization unit of the government for all marketable goods. She spoke at length about the different divisions for specific goods prescribing standards in a regulated manner, which may have voluntary obligations except for the ones which have been formally mandated by any relevant ministries. The mechanisms for implementation and regulation of these standards have evolved as a response to the technological disruptions. She spoke at length about the newly framed guidelines to regulate artificial intelligence agents, blockchain innovations among other things. The guidelines are procedurally compiled while taking into consideration the perspectives of different stakeholders involved in the commercial exchange and government authorities.

Perspectives of Mathew Joji: Mathew spoke about his association International Justice Mission (IJM), an organization with goal to facilitate socio economic concerns and crime detection through technological assistance. The network is spread across various countries around the globe. Broadly, their mandate is to provide justiciable means to the marginalized community, rescue and rehabilitate the victims and aid the law enforcement agencies. The organization was primarily started in 2006 to combat the incidents of sex trafficking in West Bengal, a state that shared its boundaries with three other neighboring countries. The speaker made several depictions of child abuse and sex trafficking done on the Internet and how the perpetrators have been evolving to cope with the governing regulations of the Internet. Therefore, the issues of governance work in consonance to combat the maligning interests of perpetrators.

Session 7: Concluding Session

Time:18.45-19.45 IST

1. Special Remarks: Anil Jain, CEO, NIXI

Moderators: Satish Babu, Chair, ICANN APRALO. Chair, APSIG and Prateek Pathak, inSIG Alumnus. Volunteer, ISOC Mumbai Chapter.

Rapporteurs: Raghu Gagneja and Ravinder Beniwal

Satish Babu started the session by giving a brief background about The National Internet Exchange of India and its current CEO, Mr. Anil Jain. Mr. Jain then began his address by commending the efforts of inSIG organizing team for managing to flawlessly execute a virtual school in their first time especially in these tough times of pandemic. Touching upon the larger overall trends in the economy, Mr. Jain spoke about the silver lining that can be seen in terms of accelerated Internet adoption by the public and the many ways in which the country is undergoing social, political and economic changes.

He further elaborated on the transformative impact that upcoming technologies — Artificial Intelligence, end-to-end tech, et al — will have on the society in years to come. Mr. Jain highlighted the critical role the multi-stakeholder model plays in the domain of Internet governance and how inSIG and other capacity building programs are crucial for having the country and its 600 million plus users' interests be represented at global decision-making forums. He emphasized the commitment of India's prime minister, Mr. Narendra Modi, and the country's IT minister, Mr. Ravi Shankar Prasad, towards achieving these ideals.

Mr. Jain's address laid a strong emphasis on India's ongoing Digital Revolution and the factors powering its progress, including boosting an IT and Manufacturing driven economy. He also enumerated the challenges in Internet Governance lying ahead, both at global and regional level, and the significant role of geopolitical dynamics at shaping the future, while simultaneously opining the dire need for a rethink in this sphere.

He additionally stressed the need to enhance digital cooperation among all stakeholders, nationally and globally. Mr. Jain concluded his address by emphasizing the role of India's industry and academia's representation at global standard, developing organizations and again underscoring the importance of programs like inSIG and others towards achieving this ideal.

2. inSIG 2020 Fellow Quiz

Time: 19:00-19:30

Moderators: Nandita Koshal, Treasurer, ISOC India Mumbai and Prateek Pathak, inSIG Alumnus and inSIG 2020 Steering Committee Member.

A 30-minute Quiz was organized for the fellows so that they can evaluate how much they have learned over the period of 4 days. All the fellows cleared the quiz with flying colours.

3: Update on India Youth IGF, Speaker: Ihita Gangavarapu, India YIGF Team

Ihita from India YIGF team explained the vision of the organization and briefed about the upcoming events of the organization and invited the young fellows to engage further with the community and become part of the youth movement.

4: Way Forward and Vote of Thanks

The event Vote of Thanks was delivered by Satish Babu who thanked all the speakers, the participants of the inSIG 2020 and the organizing committee for making it a successful event online for the first time in inSIG history. He concluded the session by encouraging fellows to work in future also with inSIG and get more involved in this evolving domain. With this the 5th Edition of the inSIG, Virtual inSIG 2020 was officially closed.
