Internet Society

Asia-Pacific Regional Internet and Development Dialogue

on building a sustainable future through an inclusive Internet in Asia and the Pacific

Report

3-4 October 2016

Bangkok, Thailand

1. Overview

The Internet Society (ISOC) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) co-organized an Asia-Pacific Regional Internet and Development Dialogue (APRIDD) at the United Nations Conference Centre in Bangkok, Thailand on 3-4 October 2016.[1] The event brought together about 200 participants that included high-level government officials from Asia and the Pacific, and a multidisciplinary group of leading regional experts, civil society organizations, industry representatives, entrepreneurs, and academic and research institutes.[2]

A pre-event workshop took place in partnership with the Association for Progressive Communication (APC) on 2-3 October 2016. This workshop brought together 19 women leaders and 19 ISOC Chapter leaders from the region to discuss strategies for mainstreaming gender in information and communications technology (ICT) policymaking that will contribute to the achievement of the Sustainable Development Goals (SDGs). The participants from this workshop also took part in APRIDD.

The APRIDD convened a multi-stakeholder regional dialogue on policy issues around "Internet for Development" to address some of the opportunities and challenges towards achieving the SDGs and the World Summit on the Information Society (WSIS) action lines in the Asia-Pacific region. The outcomes from APRIDD were presented at ESCAP's First Committee Session on ICT, Science, Technology and Innovation participated by ESCAP Member States on 5-7 October 2016.

The APRIDD had seven sessions that focused on:

1. Connecting the unconnected
2. Disaster risk reduction (DRR)
3. Building trust in the age of the digital economy
4. Frugal innovation and entrepreneurship
5. WSIS and sustainable development in the Asia-Pacific
6. Asia-Pacific Information Superhighway for the SDGs
7. High-level panel forum: Harnessing the Internet of opportunity for the Asia-Pacific

Each session comprised of a diverse panel and a moderator, and was conducted in the style of a dialogue with active interactions between the panellists, moderator and participants. In all the sessions, gender perspectives were considered and discussed. A set of issue papers on five cross-cutting themes was produced to guide the dialogue. The themes were: rural connectivity, enabling e-services, frugal innovation and entrepreneurship, financial inclusion, and DRR.[3]

The first day began on the afternoon of 3 October 2016 with an inaugural session presided over by Tiziana Bonapace, Director of ICT and DRR Division at ESCAP; Jigme Thinlye Namgyal, Director of Bhutan's Department of Information Technology and Telecom, Ministry of Information and Communications; and Rajnesh D. Singh, Director of ISOC's Asia-Pacific Bureau. Duangthip Chomprang was MC for the event. There were four other events organized at the same time as "side events" to the First Committee Session on ICT, Science, Technology and Innovation,[4] and it was highlighted that APRIDD was the only multi-stakeholder forum organized. Namgyal in his opening speech emphasized

[1] Front cover photo credits: ARROW, Awal, Naveed Haq, Nica Dumlao, Osama Manzar, Rajib Subba, Rajnesh D. Singh

[2] The event website is at http://www.internetsociety.org/ridd/ (Twitter hashtag #APRIDD)

[3] http://www.internetsociety.org/ridd/sites/internetsociety.org.afpif-2016/files/uploads/RIDD-Issues-Package-Final.pdf

[4] http://www.unescap.org/events/committee-information-and-communications-technology-science-technology-and-innovation-first

that an inclusive, affordable and resilient Internet is key to sustainable socioeconomic development in the region.

At APRIDD, the ESCAP ICT & DRR Gateway[5] was launched before the session on DRR. A short presentation provided an overview of the online gateway. The gateway provides news updates and publications on ICT and DRR, hazard alert maps, e-learning tools, and an online space for the ICT and DRR communities. The gateway also hosts the Tsunami Preparedness Platform, which offers tools for tsunami risk assessment, preparedness and education.

The seventh session—Harnessing the Internet of opportunity for the Asia-Pacific—was a high-level panel forum that brought together senior leaders from governmental, non-governmental and intergovernmental organizations, and the United Nations to deliberate on the way forward. Following the high-level panel forum, Mr. Raul Echeberria, Vice-President of Global Engagement at ISOC delivered his closing keynote. This was followed by vote of thanks from the organizers— Atsuko Okuda, Chief of ICT and Development Section, ICT and DRR Division at ESCAP and Rajnesh D. Singh, Director of ISOC's Asia-Pacific Bureau.

The next sections provide a summary of the discussions from each substantive session. The moderator and panellists in the sessions are listed in the annex.

The key issues, messages and ways forward that emerged from the sessions are summarized below. The summary below is meant to serve as a guide to the key discussion points from the event and do not necessarily represent the views of ISOC, ESCAP or APC, nor of the session speakers and organizations represented.

2. Connecting the Unconnected

The latest ESCAP study found that the digital divide is widening in Asia and the Pacific. Connecting the unconnected is complex and multidimensional, evident from the challenges discussed at the session that ranged from extending the Internet infrastructure to rural and remote areas, to issues related to: (1) affordability; (2) awareness and digital skills; (3) relevant content and services; (4) privacy, security and trust; and (5) culture and norms. Fundamentally, electricity needs to be available to power the ICT infrastructure.

Although there is a broad understanding that these are the barriers to Internet adoption, panellists noted that there is a knowledge gap in the measures that need to be in place to overcome these barriers and bridge the digital divide. Panellists also stressed the need to include women and men in the communities in developing innovative connectivity solutions and in creating relevant content. Capacity building efforts should thus be focused at the local and community levels, and include marginalized groups.

Despite the ubiquity of mobile phones, public access points (also variedly called telecentres, community multimedia centres, Internet cafes, etc.) are still relevant and needed, especially for providing training on the use of the Internet and assisting with the use of online services. Broadband connections are important at these public access points to stream audios and videos, as a significant proportion of the population are still illiterate.

[5] http://www.drrgateway.net/

Sustainable business models for public access points are still being sought. It would therefore be useful to collate and analyse the knowledge and experiences in this area to better inform decision-making and ensure that public access points are sustainable. Panellists from Bangladesh and India shared their experience in establishing and sustaining public access points.

In Bangladesh, the Prime Minister's Office, through the Access to Information Programme,[6] has established over 5,000 public access points throughout the country in which over a hundred different public and private services are being offered. A public-private entrepreneurship model was adopted which has been successful and sustainable.

In India, 170 villages and tribes located in rural and remote areas have been connected through Digital Empowerment Foundation's Wireless for Communities initiative[7] with support from ISOC and the Ford Foundation. The initiative adopted a micro-enterprise model and works with communities to utilize unlicensed spectrum bands to create community-owned and operated wireless networks. Training is provided to the communities on managing the networks, and using the Internet to establish entrepreneurial activities and create local content and services.

In Thailand, public access points have not been as effective and communities preferred to be connected from home. Samoa has also seen a decline in the number of public access points, and is shifting resources to improve the digital literacy of children, particularly girls. There is no one-size-fits-all solution, as solutions are context specific.

The panel reminded us that each ability created on the Internet is a disability or inability for those without access. When government or other entities digitize services, they tend to also shut down or reduce physical access to these services, depriving those who are not online, access to basic services. It is therefore important to question the Internet of opportunity for whom, and the empowerment of whom? There is an urgent need for policies and programmes that aim explicitly at providing access among certain groups, such as women, the poor, disabled, elderly, indigenous peoples, migrants, refugees and internally displaced persons. These populations are disproportionately underrepresented online, and are most likely to be left behind by market-led efforts.

A part of the solution could be the development of public access points that target specific underrepresented group. The panellists also emphasized the importance of building an ecosystem around the Internet that considers the infrastructure, regulations, education, content and services, and trust in a holistic and gender-equitable way.

The panellists stressed that being connected is not sufficient. Users of the Internet must be able to exercise their basic human rights and freedoms online as well as offline. Without this, the Internet risks becoming a medium where a small number of powerful stakeholders control how it is shaped and used.

3. Disaster Risk Reduction

Asia and the Pacific is the most disaster prone region in the world. With climate change, the frequency and intensity of disasters will increase, impeding progress towards sustainable development. ICT can play an important role in all phases of disaster risk management. Some of the ICT tools were discussed by the panellists.

[6] http://www.a2i.pmo.gov.bd/one-stop-service-centre/
[7] http://wforc.in

Space-based technologies are recognized as essential for disaster risk management, particularly for remote sensing, mapping and communication. Yet, many organizations are not using these technologies due to their high cost and lack of expertise in using them. But many of these organizations are also not aware that free satellite data is available through initiatives like Landsat and Sentinel Asia. The Pacific Islands has a disaster risk management web portal[8] with maps and other resources. Many emergency communication systems use satellite phones or radios as back up during disasters when terrestrial networks fail. There is a need to raise awareness and build capacity on the use of space-based technologies for DRR.

The session had a lively discussion on the use of social media for disaster relief and response, and panellists shared examples of the effective use of social media in the 2015 Nepal Earthquake and other disasters. Social media was used to inform their family and friends about their safety. Social media was also used to have two-way communication with the government on needs that were not met, for example, the need for baby food and sanitary pads that were not included in the relief supplies. Through social media the crowd was harnessed to report on disaster situation and assist responders in relief and rescue operations. A global network of volunteers helped to map out routes to show how relief can reach the communities that need them most. In Japan, during emergencies, citizens were advised to use WeChat and Viber to prevent overload of the network.

Social media has changed the paradigm in disaster response and management. The old paradigm was one-to-many in which relief agencies assess the situation, and dispense aid with the limited information they have. The new paradigm is many-to-many in which disaster victims are not merely aid recipients but also active participants in relief and rehabilitation.

Panellists underlined the importance of planning for disasters before they strike. Government should have a social media strategy, vulnerability should be mapped, preparedness plans should be developed, and the resilience of people and infrastructure should be built. A suggestion from one of the panellists was the establishment of a unified toll-free emergency number for Asia-Pacific.

Before disasters strike, it is difficult to get government and citizens to invest their time and resources in disaster preparedness and mitigation. Panellists emphasized the importance of incorporating DRR in education and coming up with innovative ways to engage children, e.g., through online games. Central Asia is highly prone to earthquakes and is making it a priority to reduce seismic risk as a subregion through cross-country and cross-sectoral exchanges and collaboration. The effective use of ICT is being incorporated in the DRR strategies and plans of Central Asian countries.

4. Building Trust in the Age of the Digital Economy

The Internet's full potential will only be realized if it has a solid foundation in trust. This is because everything that we do online is mediated through at least one third party—the Internet service provider, telecommunications operator, e-commerce platform, social media site, etc.—and therefore needs to be based on trust.

Personal data is being collected, used, traded and manipulated by multiple parties, which makes the issues of privacy, security and trust all the more important. How can we ensure that personal data and privacy is protected by these multiple parties? When that trust is questioned, the system starts to break down.

[8] http://gsd.spc.int/pacific-disaster-net

Robin Wilton, ISOC's Technical Outreach Director for Identity and Privacy defined trust as:

> "The belief that someone else will act in your interests, even if they have the opportunity and the motivation to do otherwise. It's a belief, and like any belief, it may be well- or ill-founded. You may be mistaken or misinformed, or the other party may be deceiving you."[9]

Panellists listed some key attributes of trust as follows:

- Knowledge and understanding of how your information is being used
- Protection of privacy and security (technology and human)
- Transparency or the openness of each party with each other
- Right to access, control and use data, and ability to delete and unwind transactions
- User-centric, based on users' preference and choices
- Based on equality of opportunity and treatment
- Based on a moral and ethical framework

Establishing trust requires a combination of technical solutions in design and settings (e.g., CERTS and encryption), laws and regulations (ensuring human rights are protected and taking appropriate legislative actions), and self-policing and self-regulation (knowing what is safe to share online and ensuring the software on our devices is up-to-date).

Encryption as a solution was discussed. The use of encryption by criminals have brought a negative connotation to the technology, but banking, for example, relies on encryption. Encryption technologies enable Internet users to protect the confidentiality of their data and communications from unwanted observation and intrusion. Some may use the "nothing to hide, nothing to fear" argument, but Malavika Jayaram, Executive Director of Digital Asia Hub quoted Edward Snowden: "Arguing that you don't care about the right to privacy because you have nothing to hide is no different than saying you don't care about free speech because you have nothing to say." Being anonymous serves as a good public function to voice issues that could not have been voiced by mistreated women or a lesbian, gay, bisexual or transgender individual.

Data protection laws are certainly needed, but insufficient. Jayaram pointed out that personal data can no longer be considered in the framework of ownership and consent. Addressing personal data with an ownership framework does not work when data from various sources is being aggregated and analysed by multiple parties.

Consent only exists when a person is consenting to every intended use, present and future, with clear knowledge of the risk and ramifications. This is clearly not the case and can never be, because no one knows how a person's data will be used in the future by whom, and there is no control of how a person's data will be used. Trust requires a rights-based and ethical approach in which by design, certain data is not collected.

Further studies is required in many areas of privacy, security and trust, including what the harm is when privacy is violated and how the ethical approach to privacy and data protection can be put into practice. ICT literacy and skills development need to include an understanding of privacy, security and trust issues. It is also important to shift the burden of establishing digital trust from users to public and private sector organizations that are in a stronger position to bear the risk, and design security into products and systems right from the start.

[9] https://jumpingqi.wordpress.com/2015/05/11/what-is-trust/

The line between security in the virtual environment and physical environment is thinning and there are already incidences where security breach in the airport online system has impacted on the safety of many lives on planes. As governments adopt the Internet of things and smart cities, trust issues will become a top priority. A multi-stakeholder collaborative approach is needed to address privacy, security and trust issues, and it should include not only the technical community and policymakers, but also the users and non-users of the Internet, women and men.

5. Frugal Innovation and Entrepreneurship

Frugal innovations are low-cost solutions that originate from local "bottom of the pyramid" communities. They use local knowledge and resources to meet their specific local needs. The diverse panel shared examples of frugal innovations from India, Indonesia, Pakistan, Papua New Guinea and other regions in the world. They range from using coconut husks to generate electricity, to micro Internet service providers for last mile connectivity. There were also examples of local entrepreneurs venturing beyond their locality to work with telcos to offer micro-loans in their communities, and with e-commerce platforms to enable women to become sales agents.

Women entrepreneurs face many challenges, including access to finance and credit, and opportunities to acquire skills. Women in the region are often driven to entrepreneurship out of necessity, to survive and support their families, and are mostly engaged in labour intensive, low-value sectors that have relatively low barriers of entry but are highly competitive. Women entrepreneurs have fewer opportunities to engage in transformative social and economic innovations. Efforts are required to build the capacity of women entrepreneurs to innovate and grow their enterprises.

Frugal innovations often fulfil needs that are neglected by mainstream businesses, which also means they do not receive much attention by government and the private sector because they cannot be scaled up. Frugal innovations are not meant to scale, but to "fit" the needs of the communities they are meant for. An app that shows women how to grow various crops suitable for the locality in the local language will not receive any attention because it cannot be scaled up, but it has improved the livelihood of women and families in that community.

Frugal innovations have often been led by individuals or organizations in specific locations within a country, and typically independent of government interventions. However, if government can lead in driving the use of ICT for social and economic impact, and provide an enabling regulatory and policy environment where frugal innovations can flourish and scale up, this could accelerate the achievement of the SDGs.

Providing frugal innovators (both women and men) access to ICT is important because ICT can enable more effective communication with clients and suppliers, increase market size, and reduce the cost of running a business. But more importantly, it can drive social change and empowerment. Panellists emphasized the importance of "frugal Internet" for frugal innovators. Internet access needs to be accessible and affordable to the bottom of the pyramid.

6. WSIS and Sustainable Development in the Asia-Pacific

On the panel are senior leaders from Asia-Pacific Telecommunity (APT), ISOC, United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Food and Agriculture

Organization (FAO) that have committed to achieving the SDG targets and WSIS action lines. The panellists shared some of the work that they are doing.

APT is the only intergovernmental agency focused on ICT. It consolidates the regional voice for global conferences, including those organized by ITU. It supports and build members' capacity by organizing seminars and workshops to share knowledge about new and emerging technologies and ICT-related issues. It also facilities regional coordination and cooperation among its members, which include ministries, regulators and the private sector. APT has projects in health care, education and disaster management. For example, after the earthquake in Nepal, it is establishing wireless networks in rural communities.

ISOC has been mapping the SDGs and strategizing around these issues. ICTs, particularly the Internet, are uniquely positioned to facilitate implementation of each and every SDG goal, as well as enable the innovation, collaboration and partnerships needed to achieve the SDGs. Providing access to the Internet is only the first step. There has been a growing realization that access is not meaningful without user trust. As discussed earlier, an increasing number of privacy and security issues about the way personal data is treated have served to undermine trust on the Internet. We need to work together to address these issues.

UNESCO is the facilitator for WSIS Action Line C7 on e-learning and is the secretariat for SDG4: Quality Education. Three major differences between SDG4 and its predecessor, the Millennium Development Goal (MDG) 2 on education, were pointed out. Firstly, MDG2 focused on the number of children in primary education (the quantity). SDG4 focuses on the quality of education, and on all levels of education (not just the primary level)—from early childhood education to tertiary education and life-long learning. Lastly, is the need for ICT to achieve SDG4. For this, UNESCO has been promoting ICT training for teachers, supporting the inclusion of digital literacy and ICT issues in school curricula, and reforming teaching and learning methods.

FAO recognizes the need for ICT to support agriculture and food security, and has been promoting e-agriculture together with the ministries of agriculture, telcos and financial institutions. FAO in collaboration with ITU has developed an e-agriculture strategy guide[10] as a framework for countries to develop their national e-agriculture strategy/masterplan. Bhutan and Sri Lanka were the pilot countries where national e-agriculture strategy was developed using this framework.

Discussions turned again to the importance of building trust and building capacity. The panel recognized the importance of protecting children online. Trends show two extremes—children who do not know how to use ICT, and children who use ICT excessively and irresponsibly. Measures to address both these extremes are needed, and emphasis was made on the need to raise awareness and provide training for children, parents, teachers, policymakers and other stakeholders. Digital literacy and skills development need to be included in basic education. And ICT literacy and skills development need to include an understanding of privacy, security and trust issues.

7. Asia-Pacific Information Superhighway for the SDGs

The Asia-Pacific Information Superhighway (AP-IS) is a member-driven initiative of ESCAP to improve regional broadband connectivity through a dense web of open access cross-border infrastructure.[11]

[10] http://www.fao.org/asiapacific/resources/e-agriculture/en/
[11] http://www.unescap.org/sites/default/files/AP-IS-Leaflet-English.pdf

The initiative aims to create a seamless regional network of fibre optic cables to provide both intra-regional and intercontinental connectivity. This enhanced regional fibre network would:

- Drive international bandwidth prices down and improve affordability
- Increase resilience by offering redundancy
- Decrease latency across the region
- Enhance digital inclusion

In 2015, the ESCAP 71st Commission Session passed a resolution to establish a Working Group on the AP-IS to develop a master plan and a regional cooperation framework for the AP-IS. Both the AP-IS master plan and regional cooperation framework have been endorsed by Member States at ESCAP's First Committee Session on ICT, Science, Technology and Innovation held right after APRIDD on 5-7 October 2016.[12]

The panel discussed some of the strategies and good practices that can be incorporated in the implementation of the AP-IS. The panel stressed the importance of regulations based on open access, and the adoption of an ecosystem approach that addresses not only the connectivity aspects but also the users, content and services that make up the Internet. Digital inclusion is important to ensure that marginalized communities will also have access and benefit from the AP-IS initiative.

In Malaysia, its Eleventh National Plan 2016-2020 includes efforts to shift citizens' pattern of Internet usage from entertainment to productivity. Other efforts include the use of big data to prevent epidemics and improve public transportation systems. In Bangladesh, the government is collaborating with KT of the Republic of Korea and other organizations on a GiGA Island project that aims to enhance the quality of life on Bangladesh's remote Moheshkhali Island. It includes the roll out of the Internet infrastructure, as well as the development of an ecosystem of content and services around four key areas—education, training, maternal and child health, and agriculture.[13]

The incorporation of an intelligent system in the AP-IS was proposed so that the infrastructure is linked with intelligent services that leverage big data and the Internet of Things, and ensure that security is addressed at the network.

Panellists emphasized the need to coordinate, collaborate and harmonize the AP-IS initiative with projects by regional partners such as ASEAN and SAARC, and multilateral organizations such as the Asian Development Bank and World Bank. The World Bank is supporting the Electricity Transmission and Trade Project for Central Asia and South Asia (CASA)[14] that makes use of excess water supply in upstream countries of Kyrgyzstan and Tajikistan to generate hydropower, and trade with energy deficient markets such as Afghanistan and Pakistan. The link with AP-IS can allow these countries to generate additional revenue. The ADB is supporting the Pacific Island countries to introduce submarine cable systems, and the South Asia Subregional Economic Cooperation (SASEC) Information Highway that involves Bangladesh, Bhutan, India and Nepal.[15] These projects should be linked with the AP-IS initiative.

[12] http://www.unescap.org/news/asia-pacific-countries-endorse-masterplan-develop-seamless-regional-broadband-connectivity

[13] See https://itu4u.wordpress.com/2016/07/13/kts-global-giga-island-project-to-help-transform-digital-bangladesh/

[14] http://www.worldbank.org/projects/P145054?lang=en

[15] https://www.adb.org/projects/40054-013/main

8. High-Level Panel Forum: Harnessing the Internet of Opportunity for the Asia-Pacific

Asia and the Pacific is the most digitally divided region in the world. Some countries in the region have just a couple of people focusing on ICT while others have hundreds. Particularly, low-income countries and least developed countries are struggling to keep up with the pace of technological change given the resources available. This is creating new divides including the rural-urban divide, gender divide, and other forms of inequality.

Panellists highlighted some key directions to ensure that everyone can participate in the Internet of opportunity. Different models of access is required to bridge the digital divide. Policymakers and regulators need to provide enabling environments to encourage investment in the Internet ecosystem—not only infrastructure, but also users' empowerment, foster innovation and competitiveness, promote interoperability and interconnectivity, and ensure that basic human rights and freedoms are respected.

Efforts of the governments of Bangladesh and Sri Lanka were commended for exponentially increasing access to the Internet, and some of the good practices adopted in these countries could be replicated.

Issues around gender and Internet access are receiving greater attention recently. It is vital that gender perspectives are integrated in plans around the Internet. The Internet of opportunity should include participation and bringing in as many voices as possible—this means including resources (both financial and human) to ensure multi-stakeholder participation. It should also look at the issues of risk and safety in relation to rights.

In the closing session, Echeberria from ISOC emphasized the need to act now and with a sense of urgency if we really want an Internet for everyone, and multi-stakeholder collaboration is key to narrowing the complex divides. Singh from ISOC and Okuda from ESCAP thanked the participants for an enriching dialogue. Okuda expressed that APRIDD is just the beginning, and looks forward to engaging with the participants to transform the dialogue into concrete initiatives and development gains in the coming months and years.

Annex: Agenda

Asia-Pacific Regional Internet & Development Dialogue

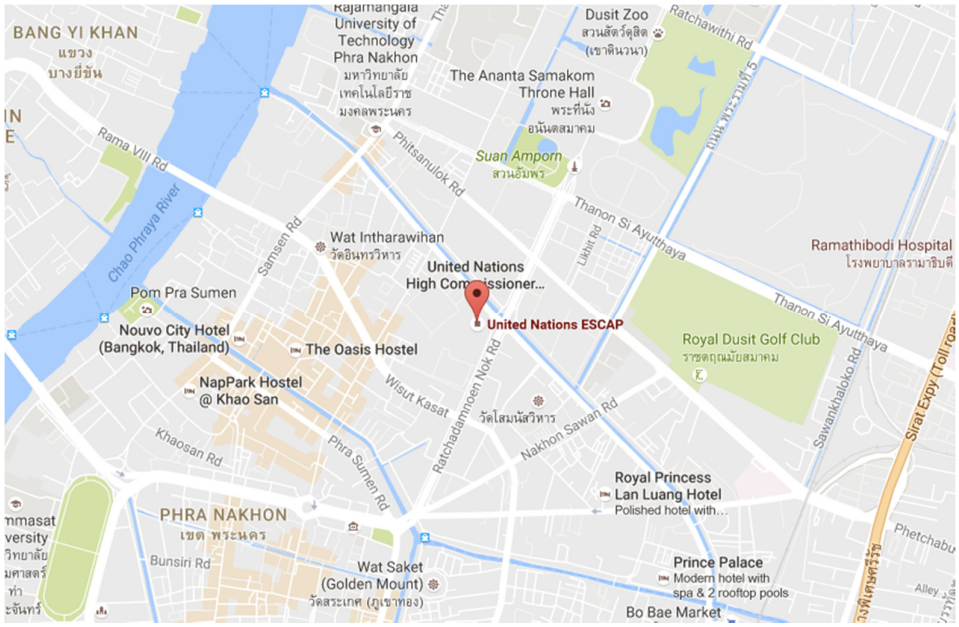
THE INTERNET OF OPPORTUNITY

Building a sustainable future through an inclusive Internet in Asia-Pacific

AGENDA

When: Day 1: October 03 13:00 - 17:00
Day 2: October 04 09:00 - 17:30
Conference Reception: October 04 18:00 – 19:30

Where: United Nations Conference Centre (UNCC)
United Nations Building, Rajdamnern Nok Avenue
Bangkok, Thailand
Map: https://goo.gl/maps/K18CN4YCSuQ2



Website: http://internetsociety.org/ridd/
Registration: https://www.internetsociety.org/form/ridd *(seats are limited)*
Twitter Hashtag:#APRIDD

The conference will consist of opening and closing sessions, plenary sessions as well as panel discussions. It will be a one and half day event that will cover a range of topical issues related to the Internet and Development in the Asia-Pacific region. *Seats are limited and prior registration is required.*

The event will be hosted by ESCAP (United Nations Economic and Social Commission for Asia and the Pacific) and will be held back-to-back with the ESCAP first Committee on Information and Communications Technology, Science, Technology and Innovation.

Day 1 | October 03, 2016

09:00 – 12:00	**Pre-Event Workshop: Gender Mainstreaming in Internet and Development in the Asia-Pacific Region (by invitation)**
13:00 - 14:00	Registration
14:00 - 14:30	**Inaugural Session** Featuring welcome, opening and a keynote *Speakers:* *Ms. Tiziana Bonapace, Incoming Director, Information and Communications Technology and Disaster Risk Reduction Division, ESCAP* *Mr. Rajnesh D. Singh, Regional Director, Asia-Pacific, Internet Society (ISOC)* *Mr. Jigme Thinlye Namgyal, Director, Department of Information Technology and Telecom, Ministry of Information and Communications (DITT/MOIC), Bhutan* *MC: Ms. Duangthip Chomprang*
14:30 - 16:00	**Plenary 1: Setting the scene - Connecting the unconnected** Access and Affordability stand as two main challenges in bringing the next billion users online in the Asia-Pacific region. Governments are making efforts to facilitate access and affordability, industry is trying to remain competitive while the future users from rural and un-served parts are eager to become part of the digital society. The session will feature discussions on issues, challenges and future outlook of Internet access and affordability in the Asia-Pacific. *Speakers:* *Ms. Unutoa Auelua-Fonoti, Regulator, Office of the Regulator, Samoa* *Ms. Kanchana Kanchanasut, Professor, AIT and Vice-Chair THNIC Foundation, Thailand* *Ms. Atsuko Okuda, Chief, ICT and Development Section, ICT and Disaster Risk Reduction Division, ESCAP* *Mr. Osama Manzar, Founder/Director, Digital Empowerment Foundation, India* *Ms. Suparna Roy, Local Development Expert, Access to Information (a2i) Programme, Prime Minister Office's, Bangladesh* *Mr. Phet Sayo, Senior Program Officer, International Development Research Centre (IDRC)* *Moderator: Ms. Jac Kee, Association for Progressive Communications (APC), Malaysia*

16:00 - 16:30	Launch of ESCAP Disaster Risk Reduction Online Gateway
16:30 - 17:30	**Forum: Disaster Risk Reduction** This session will provide an insight on best practices and experiences and knowledge related to the development of ICT for disaster response and recovery, that ultimately seeks to realise robustness and reliability of critical ICT infrastructure throughout the Asia-Pacific region. *Speakers:* *Mr. Lal Samarakoon, PhD, Director, Geoinformatics Centre, School of Engineering and Technology, Asian Institute of Technology, Thailand* *Mr. Sanjay Kumar Srivastava, PhD, Chief, Disaster Risk Reduction Section Information and Communications Technology and Disaster Risk Reduction Division (IDD), ESCAP* *Mr Rajib Subba, Deputy Inspector General and Director Communication Directorate, Nepal Police Headquarters, Nepal* *Mr. Don Tartaglione, Communications Officer, Asian Disaster Preparedness Centre, Thailand* *Mr. Dzhergalbek Ukashev, Deputy Director, Centre for Emergency Situations and Disaster Risk Reduction (CESDRR), Republic of Kazakhstan* *Moderator: Mr. Abu Saeed Khan, Senior Policy Fellow, LIRNEasia, Dhaka, Bangladesh*

Day 2 | October 04, 2016

09:00 - 10:30	**Plenary 2: Building Trust in the Age of the Digital Economy** This session will look at how we can build a better online security and trust agenda for the Asia-Pacific region as we move towards a digital economy that cuts across all sectors. It will also look at the interplay of security and trust, and the policy choices they shape. *Speakers:* *Mr. Wanawit Ahkuputra, Deputy Executive Director, ETDA, Thailand* *Ms. Malavika Jayaram, Executive Director, Digital Asia Hub, Hong Kong* *Mr. Chester Soong, Principle Consultant, Security Consulting Services, Hong Kong* *Mr. Robin Wilton, Technical Outreach Director (Identity and Privacy), Internet Society, United Kingdom* *Mr. Vu Anh Tien, Industry Analyst, Frost & Sullivan, Malaysia* *Moderator: Mr. Laurie Patton, CEO, Internet Australia, Australia*
10:30 - 11:00	Break [Videos from projects/initiatives in the region play in background]
11:00 - 12:00	**Forum: Frugal Innovation and Entrepreneurship** This session will showcase stories of innovative devices, platforms, software and entrepreneurs. It will also focus on steps required to nurture innovative minds, providing them with opportunities to create and contribute to the digital ecosystem. *Speakers:* *Ms. Winifred Amini, Founder, Win-IT Consultancy, Papua New Guinea* *Mr. David Appasamy, Head – Brand and Strategy, Social Beat, India* *Mr. Dondi Haranto, Founder, Kinara Indonesia, Indonesia* *Mr. Michael Mudd, Managing Partner, Asia Policy Partners, Hong Kong* *Ms. Maria Umar, President and Director, Women's Digital League, Pakistan* *Moderator: Mr. Winthrop Yu, Consultant, Philippines*
12:00 - 13:15	Lunch
13:15 - 14:15	**ESCAP session: WSIS and Sustainable Development in the Asia-Pacific** This session will provide a broad overview of WSIS and its linkages to the Sustainable Development Goals, and policy actions required to put the region on track to achieve sustainable development. *Speakers:*

	Mr. Masanori Kondo, Deputy Secretary-General, Asia-Pacific Telecommunity (APT) *Ms. Joyce Dogniez, Senior Director Global Engagement, Internet Society (ISOC)* *Ms. Jonghwi Park, Programme Specialist, Head of ICT in Education, UNESCO* *Mr. Gerard Sylvester, Knowledge and Information Management Officer, Regional Office for Asia and the Pacific, Food and Agriculture Organization (FAO)* *Moderator: Mr. Ioane Koroivuki, Regional Director, ITU Regional Office for Asia and the Pacific*
14:15 - 15:30	**ESCAP Plenary 3: Asia Pacific Information Superhighway for the Sustainable Development Goals** This session will examine how the ESCAP's AP-IS initiative towards regional ICT connectivity can enhance and empower human capacity, increase access to financial services, education, healthcare and foster sustainable development. *Speakers:* *Mr. Daeho Kim, Professor, Inha University, Korea* *Mr. Yeong Ro Lee (NIA) and Chairperson of the Asia-Pacific Information Superhighway Steering Group, Korea* *Ms. Barbara Navarro, Director of Strategy and Operations, Public Policy for APAC, Russia, Middle East and Africa, Google, Hong Kong* *Mr. Mohd Redzuan Affandi Abdul Rahim, Executive Committee, ISOC Malaysia Chapter, Malaysia* *Mr. Randeep Sudan, Adviser Digital Strategy and Government Analytics, World Bank, Singapore* *Moderator: Ms. Tiziana Bonapace, Director, Information and Communications Technology and Disaster Risk Reduction Division, ESCAP*
15:30 - 16:00	Break [Videos from projects/initiatives in the region play in background]
16.00 - 17:00	**ESCAP High-level Panel Forum: Harnessing the Internet of Opportunity for the Asia-Pacific** *Speakers:* *H.E. Mr. Zunaid Ahmed Palak, State Minister, Ministry of Posts, Telecommunications and Information Technology, Bangladesh* *Mr. Masanori Kondo, Deputy Secretary-General, Asia-Pacific Telecommunity (APT)* *Mr. Malcolm Johnson, Deputy Secretary-General, International Telecommunication Union (ITU)*

	Ms. Chat Garcia Ramilo, Deputy Executive Director, Association for Progressive Communications (APC), Philippines *Mr. Rajnesh D. Singh, Regional Director, Asia-Pacific, Internet Society (ISOC)* *Moderator: Ms. Tiziana Bonapace, Director, Information and Communications Technology and Disaster Risk Reduction Division, ESCAP*
17:00 - 17:30	Closing Keynote and Wrap-up *Keynote: Mr. Raul Echeberria, Vice-President, Global Engagement, ISOC* Wrap-up: *Ms. Atsuko Okuda, Chief, ICT and Development Section, ICT and Disaster Risk Reduction Division, ESCAP* *Mr. Rajnesh D. Singh, Regional Director, Asia-Pacific, Internet Society (ISOC)*
18:00 - 19:30	Conference Closing Reception

For further information:

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