ARMIGF 5

N2 FORUM
10 OCTOBER 2019

AGENDA

08:30-09:30	REGISTRATION
09:30-10:00	N2 FORUM GRAND OPENING
10:00-11:00	Plenary	Digital Future: Challenges and Opportunities
11:00-11:30	COFFEE BREAK
11:30-12:00	Talk	Internet Governance Council: Overview and Activity Update
12:00-13:00	Panel Session 1	Earth or Cloud for the Data?
13:00-14:00	LUNCH BREAK
14:00-14:30	Talk	Global encryption under threat: the false promise of lawful access solutions
14:30-15:30	Panel Session 2	Local Content: Video Feed
15:30-16:00	COFFEE BREAK
16:00-16:25	Talk	How to preserve online news
16:25-16:35	Talk	Connecting Unconnected: Chapterthon 2019
16:35-17:00	Talk	Investing in digital future– ARmenia
17:00-18:00	Panel Session 3	Cybersecurity Center: Governmental, National or Sectoral?
18:00-18:30	Conclusions and Final Remarks

OCTOBER 10-12, 2019

OPENING

The 5th edition of the Armenia IGF was held as part of a series of events titled "N2 Forum", organized, hosted and sponsored by leading local and international organizations. The N2 Forum was held on 10-12 October 2019 in Yerevan, Armenia. The events aimed to create platforms for leading industry experts, network operators, service providers, and other representatives of the Internet and ICT community to discuss common interests and ideas, to learn about the new trends of the industry, to share experiences and find opportunities for cooperation.

The essence of these joint efforts was reflected in the N2 Forum slogan - "Working Together for the Digital Future".The N2 Forum included the following events: **Armenia IGF, Youth IGF Armenia, Armenian Network Operators Group Forum (ArmNOG), Eastern European DNS Forum, RIPE NCC Banking Workshop, ISOC IoT SIG Workshop**.

OPENING PANEL | DIGITAL FUTURE: CHALLENGES AND OPPORTUNITIES

The Forum started with a Grand Opening with participation of Mr. Hakob Arshakyan, Minister of High-Tech Industry of Armenia, Mr. Göran Marby, President and CEO of ICANN, Mr. Axel Pawlik, Managing Director of RIPE NCC, Ms. Lianna Galstyan, IGF MAG member and Armenia IGF Coordinator, and Ms. Kristine Gyonjyan, Director of Operators Union of Armenia. Right after the Grand Opening, the Forum hosted a Plenary session titled "Digital Future: Challenges and Opportunities", moderated by Ms. Sorina Teleanu, Chair of SEEDIG Executive Committee. The panelists, high-level representatives of I* organizations, shared their concerns and broad views on perspectives of Digital Future in the world and emphasized the role of multistakeholder collaboration in the region.

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TALK 1 | INTERNET GOVERNANCE COUNCIL. SUMMARY OF ACTIVITIES

Armen Abroyan, RA Deputy Minister of High-Tech Industry, IGC Chair

The RA Deputy Minister of High-Tech Industry Armen Abroyan presented to the participants the brief history of the establishment of the commission, the goals and the activity. He highlighted the multi-stakeholder principle of the Council and its importance for the society.

TALK 2 | GLOBAL ENCRYPTION UNDER THREAT: THE FALSE PROMISE OF LAWFUL ACCESS SOLUTIONS

Frédéric Donck, European Bureau Director, Internet Society

Internet Society European Bureau Director Frédéric Donck started his speech by giving a short overview of what encryption is and how it serves in terms of security for common users in their daily operations on the Internet. He updated on the current situation in the world and intentions by some governments to weaken encryption in order to manage unlawful behaviour. Yet weakening encryption would weaken privacy and increase vulnerability. It is a risk of personal and national security. Mr. Donck summed up his intervention noting that "Encryption is just not a technology, encryption is a system that is a key for cybersecurity".

PANEL SESSION 1 | DATA LOCALIZATION: EARTH OR CLOUD FOR THE DATA?

Gevorg Hayrapetyan, Head of Personal Data Protection Agency
Representative from the Security Council Office of Armenia (TBC)
Representative from the National Security Service (TBC)
Hayk Abelyan, Police of ArmeniaRepresentative of Microsoft (TBC)

Moderator: Samvel Martirosyan, Director, ArmSec Foundation

The development of Internet technologies has created a situation when the bandwidth of international channels has started to exceed the bandwidth of local networks. This factor has led to the fact that technically the data storages can be located hundreds of kilometers away from the user, without creating any inconvenience to the user in everyday work.Leading IT companies, using this opportunity, as well as the annual doubling of computer productivity, offer to deploy data in data-centers located in different countries, where a reliable connection, power supply, qualified personnel are available.Cloud solutions provide greater reliability when tens of hundreds of data-centers are connected by high-speed channels, which makes it possible not to depend on the disruption of one data-center or the closure of its channels. Moreover, Azur, Amazon, Google allow the use of "cloud applications", for which payment is made for the actual use of that application, the prices per minute of use of each application are set.From a political point of view, however, the regulations of different countries require the localization of data, that is the placement of data in the territory of the given country or countries. The formal justification for such an approach is, in particular, the need to protect personal data. In case the data is in the territory of the country, the law enforcement bodies have the opportunity to take the necessary actions within the framework of the national legislation. Otherwise, it is necessary to act within the framework of bilateral or multilateral agreements, which is not always possible and requires much more time.

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There are no regulations on data storage in Armenia. Private companies store their data in any country or in the cloud. There are also no deployment requirements for state or local self-government authorities. This situation does not allow us to clearly determine, for example, whether the use of the Office 365 package in public administrations is legal or not.

The speakers started the discussion with the observation that today, without a legislative regulation, the approach that the data of the state bodies should be stored in the territory of Armenia operates.

This approach contains some threats: the geographical location of the Republic of Armenia, the scarcity of channels, the routes of their installation, the protection from hackers. All this calls into question the justification of this approach. The issues related to the decision of the PSRC (Public Services Regulatory Commission) on "setting a standard for the preservation of archives on Internet access services provided by persons regulated in the field of electronic communications" are also related to the topic. In particular, it was mentioned that users will not store data in Armenia, that so the reliability of data storage is low, it is possible to use that data in bad faith.Data protection in the Republic of Armenia will contradict the legal obligation of the "Declaration of Cyberspace" signed by the Republic of Armenia in Paris, where the Republic of Armenia accepts the principles of open and free data exchange via the Internet.The Republic of Armenia has signed "Personal Data Processing" Conventions No. 108 and 108+, which require not to restrict the cross-border flow of data, if it is due to objective circumstances. The Personal Data Protection Agency has established a list of 50 countries where the transfer of personal data is possible, which is due to the appropriate level of data protection in those countries. There is no setting for cloud installation.During the discussion it was mentioned that the advantages of cloud data storage are also financial, which led to the transfer of the "Mobile Network Portability" system from Armenia to the cloud.

Suggestions: The localization of the data should be left to the discretion of the developer, depending on the type of data. You can also encrypt the data. Legislation allows the government to establish separate rules for data protection.The location and size of the country allows not to duplicate the experience of other countries, but to develop its own strategy and tactics, which is expedient to be implemented by the forces of the Security Council of Armenia.It was noted that keeping a "log file" is not relevant, in the EU this requirement has been removed, this data is not useful for investigation, but can be used to prosecute dissidents.It is necessary to implement a "hybrid" approach to data storage, separating both data types and storage conditions.

PANEL SESSION 2 | LOCAL CONTENT: VIDEO STREAM

Tigran Hakobyan, Television and Radio Commission Chairman
Ararat Arushanyan, President of the Union of Cable Operators
Armen Hunanyan, Public Services Regulatory Commission
Kristine Gyonjyan, Director of the Union of Operators of Armenia
Armen Muradyan, Director of Arpinet LLC

Moderator: Grigori Saghyan, Internet Society NGO Board Member

The Law on "Television and Radio" of Armenia has a notion of "cable network" which has almost lost its relevance, as nowadays, video content is provided through the same electronic communication networks as Internet access services.Any Internet service provider allows its users to watch video content from both local and foreign platforms (by renting hosting, posting on YouTube, other cloud platforms).However, in order to provide some local video content, the operator has to obtain an additional license from the Television and Radio Commission as a "cable network" operator, while the same video content, if it is posted on foreign platforms, is accessible to users without any obstacles.Before the digitalization of television programs, the concept of "television channel" was clearly associated with the "television studio" that had the right to use that "television channel" (frequency) to deliver video content to users. After the digitalization, the "TV studios" got the right to join the "multiplex" instead of the "TV channel", and the owner of the multiplex ensured the distribution of the content provided by the "TV studio" in the territory of the Republic of Armenia through that multiplex.
The same "TV studio" has the opportunity to distribute its products by placing it on a server, both in the territory of the Republic of Armenia and abroad.According to the current legislation, the PSRC issues a license to the Internet operator to provide Internet access.

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On the other hand, in some cases, the operator of the same network is required to obtain a license for broadcasting through cable networks provided by the TV&Radio Commission. And if the operator has a server in Armenia containing video-audio material, they must obtain a license from the Commission. In case such a server does not exist in the operator's network, there is no obligation to obtain a license from the Commission.During the discussion it was mentioned that the requirement of double licensing leads to the fact that the content creator first obtains a cable network license, does not create that network de facto, again applies to the Commission to get permission to distribute the content created or purchased by a third party through reputable operators to be included in the TV program menu of those operators.

In case of installing a server in other countries, the user has to search the Internet on his own, which is done by a very small number of users. It was also mentioned that in the next five years, with the development of technology, a significant number of users will switch to alternative viewing, which will be a big problem to promote the dissemination of national content.

It is envisaged that the PSRC will not license the electronic communication networks, which will simplify the situation, at the same time create an unregulated situation, and will be regulated in accordance with the approaches of foreign video-audio platforms.

The operators licensed by the TV&Radio Commission, in their turn, have to pay the content creators, while those who post the same content abroad don't need a license from the Republic of Armenia, thus, they don't pay to the content creator. This brings unequal conditions, which can be solved only through a radical change in the legislation.

HOW TO PRESERVE ONLINE NEWS?

Anna Chulyan, President of the Consortium of Electronic Libraries

This is not the first time that Anna Chulyan has participated in the Armenia IGF. This year she started with the presentation of the first book written by Artificial Intelligence (AI), "Lithium-Ion batteries: A Machine-Generated Summary of Current Research" published by Springer. She noted that in the data used by the AI, legal and ethical issues have not been defined yet. The book is based on an analysis of texts available on the Internet. It was also presented that the materials available on the Internet can be collected and published as an Infobook for sale. Another problem defined was how to keep the links posted on the Internet.As an option, it was proposed to unite libraries and media outlets to address copyright issues, as libraries are in some cases free from copyright fees.

The e-newspaper.com platform keeps media news, but they are for charge. The National Library of Armenia has already digitized 5 million pages. The Diaspora is involved in this process in order to preserve the Armenian-language heritage. Ms. Chulyan mentioned that it is necessary to create a culture for the processing of digital data. The experience of different countries on media data was presented. It was also mentioned that the issue of terminology translation is urgent. The Open Science initiative was represented, that is the free posting of research conducted at the expense of taxpayers.At the end of the speech, Anna Chulyan suggested to the IT specialists to develop "harvesters", which will collect materials in the Armenian language, thus preserve the Armenian cultural heritage.

PANEL SESSION 3| CYBER SECURITY CENTER: GOVERNMENTAL, NATIONAL OR SECTORAL

Hamazasp Danielyan, Member of Parliament of Armenia
Samvel Hovsepyan, RA Police
Artur Danielyan, RA National Security Service
Moderator: Ruben Muradyan, CTO, PanArmenian Media Group

Cyber security today affects everyone, both service providers and users of those services.In some countries, especially in former Soviet Union countries, the concept has a broad interpretation, which is commonly referred to as "information security". This concept includes both the safe operation of systems and the protection of users from "dangerous" or "harmful" content. Currently, there are several definitions for the concept of "cyber security", the most common of them can be considered the consensus-based definition of the International Telecommunication Union (ITU). It is a very broad definition which makes it difficult to use in everyday life.Much more practical is the definition of the International Organization for Standardization (ISO), which in short sounds like "ensuring the sustainable operation of cyberspace." In this case, a new concept emerges - "cyberspace".The brief definition for cyberspace is "a group of users and systems connected to each other through the Internet not existing in physical form."In both definitions there is no word of protection of or from the content.In this regard, questions arise, in particular:

- Is it possible to develop cybersecurity concepts if the definition of the internationally recognized concept of "cyber security" is not legally accepted?
- Is it possible to combine content protection and cyber security in one package?
- What tools are there to ensure cyber security: establishment of Computer Emergency Response Teams (CERTs), training of staff, society, state regulation, other?
- Is it possible to create a state cyber security structure whose mandates are binding on the public, private and community sectors, as well as on critical infrastructure?
- What structure can cybersecurity centers have, will they be managed centralized or decentralized?

Before giving the floor to the speakers, the session moderator briefly presented the following issues:

- Terminology: concepts of information security and cyber security are not equivalent yet they are used interchangeably.
- Which of the working models of CERTs should be used.

- The three-tier US model: national, state and multiple sectoral,
- The two-tier EU model: state and sectoral,
- One-tier RF model: only state and limited number of private companies.

- What is the status of the Information Security Concept signed by the President of the Republic of Armenia in October 2017?
- How to regulate the issue of providing information to the public about the cyber incidents?

During the discussion of the session it was mentioned that the terminological issues are regulated by the Information Security Concept.

The approach of the NSS on CERTs is in line with the EU model, one state and different sectoral, ensuring their cooperation. Publishing information about cyber incidents in governmental bodies is not a common practice in the world, but at the same time,

in some cases the publication is necessary for the victims to be able to take measures.
It was mentioned that it is expedient to sort out the cyber incidents so that their publication does not harm the interests of the state. There is no ban on the publication of the concept of cyber security, as it is not a secret document, it can be disseminated on online platforms.

It was mentioned that the MePs need to be better informed about the professional issues, so that the legislation is adopted taking into account the professional advice.It was also mentioned that CERTs or cyber security centers should not develop, analyze or evaluate the content transferred on the networks in any way.

SPEECH 1| CONNECTING UNCONNECTED: CHAPTERHON 2019

Igor Mkrtumyan, President, Internet Society Armenia Chapter

Internet Society Armenia Chapter President Igor Mkrtumyan made a presentation on the project "Connecting unconnected schools, libraries and disabled people public organizations of Armenia to the Internet". The goal is to help vulnerable groups, rural schools, and libraries, connect to the Internet. Not only Wi-Fi routers are planned to be installed in rural villages but also run capacity building programs among the vulnerable groups.

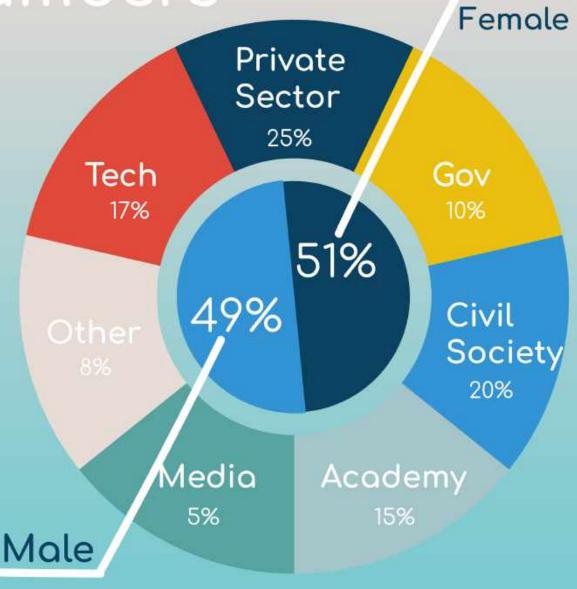# SPEECH 2 |INTRODUCTION TO THE DIGITAL FUTURE. ARMENIA

Arman Atoyan, Director, X-Tech

Arman Atoyan presented the possible applications of Augmented Reality technology in various spheres of life: culture, ecology, education, providing information about museum specimens, etc. He noted that the spread and development of this technology will allow monetizing various services. The participants were introduced to successful projects implemented through these technologies, including live speeches by Armenian celebrities.

ArmIGF2019
in Numbers

Stakeholders

Female

Private Sector 25%

Gov 10%

Tech 17%

51%

49%

Civil Society 20%

Other 8%

Media 5%

Academy 15%

Male

170 PATICIPANTS

16 SPEAKERS

10 SESSIONS

30% YOUTH

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