

#armigf2023

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ARMENIAN INTERNET
GOVERNANCE FORUM

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NOVEMBER 3

REPORT

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What is IGC and ArmIGF

Representatives from the government, business sector, academia, media, and non-governmental organizations make up the Internet Governance Council of the Republic of Armenia (**IGC**), a multistakeholder body.

The goal of the Council is to respond to difficulties by considering the views of all relevant parties in the decision-making process. Adhering to the ideal of transparency, the **IGC** disseminates information about its operations via its official website, igc.am. New methods for working are required for internet governance, which will be comparable to the information society developing at a remarkable level of speed.

The most important and reliable assurance of its successful development is the IGC Charter and public participation. The Deputy Minister of High-Tech Industry chairs the IGC, while the "Internet Society" NGO (.am/.huj ccTLD Registry) serves as the secretariat. IGC.am is the official website.

With cooperation from the RA's Ministry of High-Tech Industry, the IGC, the "Internet Society" NGO, and the Internet Society Armenia Chapter launched the national IGF effort known as the Armenian Internet Governance Forum (**ArmIGF**).

In 2015, Armenia became a member of the global IGF and hosted the country's first internet governance conference.

ArmIGF is a transparent, inclusive, and open forum for discussion and collaboration.

**8
FORUMS**

**100+
TOPICS**

**200+
SPEAKERS**

**800+
Participants**

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ArmIGF 2023

On November 3, 2023, the 8th Armenian Internet Governance Forum (**ArmIGF 2023**) took place in the Radisson Blu Hotel in Yerevan.

In order to give more individuals from remote areas of the Republic of Armenia and beyond the opportunity to attend, it was planned as a one-day hybrid event. For attendees who did not speak Armenian, there was an English-Armenian interpretation available.

The **Armenian Internet Governance Forum** has released a revised version of its website, armigf.am, which includes links to previous years' meetings as well as general information about both the Armenian and worldwide IGFs.

Links to the Zoom platform and YouTube streaming were sent to each registered participant in addition to being displayed on the website.

The members of the organizing committee, who represented a variety of stakeholder groups including the public and private sector, discussed and developed the **ArmIGF 2023** program. On the website, registration was available from October 5 through October 30.

ArmIGF

- Is an annual meeting
- With the participation of representatives of the state, public and private sectors.
- Issues related to Internet governance are discussed; information and best practice is presented.
- Contributes to the development of the Internet's opportunities, to confronting emerging risks and challenges, as well as to the universal understanding and solution of problems.



ArmIGF 2023 Organizers



ArmiGF 2023 Organizing and Coordinating Team

Internet Governance Council

Kristina Hakobyan – IGC member, ISOC NGO board member

Grigori Saghyan – IGC Secretary, Internet Society NGO Vice President

Vahan Hovsepyan – IGC member, RIPE NCC Caucasus and Central Asia External Relations Director

Internet Society NGO

Katarina Gevorgyan - ISOC NGO board member, Manager of external relations

Vesmira Harutyunyan - ISOC NGO board member

Narine Derdzakyan - ISOC Armenia chapter PO board vice-chair

Aram Verdyan - ISOC NGO board member

PR and technical team members

Lillit Galstyan – PR manager

Nana Poghosyan – Content manager

Ashot Harutyunyan – Tech support coordinator

ArmIGF 2023 Sponsors



ArmIGF 2023 Program



09:00-10:00

Registration, Welcome coffee





10:00-10:30
Opening ceremony



- **Robert Khachatryan** – Minister of High-Tech Industry of the RA
- **Mikhail Anisimov** – Head of Global Stakeholder Engagement for Eastern Europe and Central Asia
- **Vahan Hovsepyan** – RIPE NCC, external relations officer
- **David Frautschy** – Senior Director for European Government and Regulatory Affairs at Internet Society
- **Igor Mkrtumyan** – Internet Society NGO board chair



10:30-12:00

Digital challenges Solutions for society, government, and economy's digital transition



- **Hakob Arshakyan** – Vice President of the National Assembly
- **Robert Khachatryan** – Minister of High-Tech Industry of the RA
- **Nerses Yeritsyan** – Information Systems Agency of Armenia (ISAA) Foundation, Information systems management secretary of the board
- **Moderator: Vahan Hovsepyan** – RIPE NCC, external relations officer



12:00-13:00

Universal Acceptance as a part of the Internet we want



- **Maria Kolesnikova** – Coordination Center for TLD RU, Chief Analyst
- **Avetik Yessayan** – Shirak technology LLC, Founder
- **Aram Verdyan** – .am/ .huji Registry, ISOC AM board member
- **Moderator: Grigori Saghyan** – Vice Chair of “Internet Society” NGO



14:00-15:00

What is WSIS+20, its importance in the digital age, Global Digital Compact



- **Chris Buckridge** – IGF Multistakeholder Advisory Group (MAG) (remote)
- **Desiree Miloshevic** – RIPE Cooperation Working Group Co-Chair(remote)
- **Aleksey Sandikov** – IGC member, Parliament member of the RA
- **Moderator: Mikhail Anisimov** – ICANN, Head of Global Stakeholder Engagement for Eastern Europe and Central Asia



15:00-16:00

Artificial Intelligence in studying and academic process (pros and cons)



- **Armen Ghazaryan** – Armenian State University of Economics
- **Sergey Abrahamyan** – Institute for Informatics and Automation Problems, ANA of Sciences, professor
- **Armine Martirosyan** – “Education Development and Management Foundation” founder
- **Sevak Sargsyan** – RAU, Head of Department of System Programming
- **Artak Khemchyan** – NPUA, Assistant of the Department of Information Security and Software, candidate of tech. sciences
- **Suren Edilyan** – Professional Mathematical Education Department, Professor

- **Moderator: Samvel Martirosyan** – Founder of the ArmSec foundation



16:20-17:20
Digital Inclusion
(ISOC Armenia chapter's activities)



- **Karen Erznkanyan** – “Smart City”
NGO, leader of ISOC Armenia
Chapter IoT program
- **Yervand Galoyan** – OkayCode LLC,
director
- **Igor Mkrtumyan** – Internet Society
NGO board chair
- **Vahan Misakyan** – leader of ISOC
Armenia Chapter library program
- **Moderator: Vesmira Harutyunyan**
ISOC Armenia Chapter Board Chair



16:20-17:20
Wrap up, Q & A



Opening ceremony

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- **Robert Khachatryan** – Minister of High-Tech Industry of the RA
- **Mikhail Anisimov** – Head of Global Stakeholder Engagement for Eastern Europe and Central Asia
- **Vahan Hovsepyan** – RIPE NCC, external relations officer
- **David Frautschy** – Senior Director for European Government and Regulatory Affairs at Internet Society
- **Igor Mkrtumyan** – Internet Society NGO board chair

Moderator: Katarina Gevorgyan
ISOC NGO Board Member

As the forum moderator, **Katarina Gevorgyan** ISOC Armenia board member, greeted high-level guests and all attendees, both in person and online, with a warm welcome at the opening of the Armenian Internet Governance Forum 2023.

Katarina gave attendees complete guidance on the format and nuances of ArmIGF8 by outlining the event's foundation and organization. Her informative talk included all the necessary information to make sure everyone was prepared to handle the events with ease.

In addition, Katarina expressed her sincere hopes for a productive and engaging day, as well as fruitful interactions among all attendees, whether they were participating remotely or actively taking part in person.





Robert Khachatryan, the minister of the High-tech industry of RA, had been invited to deliver a welcome speech.

He expressed his gratitude to the ArmIGF 8 organizers and attendees, pointing out that these forums consistently addressed important internet-related issues. He underlined the value of hearing different points of view and stressed the participation in these talks of representatives from the public, business, and governmental sectors.

Acknowledging the internet's worldwide influence, he emphasized the unavoidability of digital shifts. He emphasized how important it was for the Armenian government to play a leading role in creating a digital environment that is knowledge- and technology-rich in all areas of public administration.

The objective of this project is to establish an ideal structure for skillfully navigating the digital environment.

Drawing on worldwide experience in digital technologies, the Ministry of High-Tech Industry has created 14 standards that provide a framework for creating digital services for the public and recommendations for digitalization. These guidelines, which are already available on the Ministry's website, are meant to improve these services' usability, accessibility, and users' confidence.

Currently, a concentrated effort is being made to incorporate these digitizing requirements into recently created services. But the task at hand is significant, requiring the active participation and cooperation of all parties involved.

To ensure that digital services satisfy the set criteria and provide the best possible service to the public, it is imperative that we work together to properly apply these standards.





Vahan Hovsepyan RIPE NCC external relations officer, greeted and expressed gratitude to the representatives of the government and prominent attendees, for being present, highlighted the RIPE NCC's initiatives and significance in the region.

Events that address policy development, Internet governance, involve the technical community, and consider the perspectives and experiences of all stakeholders are always welcomed and supported.

Many significant topics are discussed on this forum, where issues regarding Internet governance are brought up and solutions are suggested.

It is important to recognize that issues on the global stage also reflect and affect issues at the local level.

For countries that are landlocked, the Internet is a sea. The growth of the Internet presents numerous prospects for a country like Armenia, which has such strict geographical and economic limitations.

Since moving in that direction will be crucial to our success, we must acknowledge that the new digital Armenia and the digital society are what lie ahead of us.

This is a great place to be! For representatives of various stakeholder groups, ArmlGF continually distinguishes out as an important effort. Among other countries, Armenia has demonstrated impressive participation, particularly when it comes to participating in Internet governance procedures, stated **Mikhail Anisimov**, Head of Global Stakeholder Engagement for Eastern Europe and Central Asia at ICANN.

As proof of this commitment, I'm happy to learn that Armenia has applied to host the ICANN policy forum in June 2025.

I'm also interested in seeing this resolution through to completion. Thank you very much for giving me the opportunity to contribute to the discussion!





As previously stated, we greatly appreciate this platform, and it is a pleasure for me to be involved as well said **Igor Mkrtumyan**, Internet Society NGO board chair.

I would like to express my gratitude to the Ministry of high-tech industry of RA for their continuous assistance and also our financial support organizations such as ISOC, RIPE NCC, ICANN.

The internet has become an essential part of modern life. It is well known that one of the fathers of the Internet supervised the creation of a special interest group and the development of the interplanetary Internet protocols.

The idea of settling Mars is already being discussed, as well as the meta-universe, that is, the modern world as a combination of virtual and actual life has recently come into being. It can occasionally be challenging to distinguish the limits of the latter

In Armenia, the evolution of information technologies has a close connection to the evolution of the Internet. It's quite encouraging for Armenia that representatives of roughly ninety international businesses are operating here.

Igor Mkrtumyan highlighted the difficulties our country faces.

- Hacking attacks are a common security concern, particularly when they originate from a hostile neighbor. That an information systems agency led by Nerses Yeritsyan has been established in Armenia with the primary objective of ensuring Armenia's information security makes me happy.
- Armenia has a high rate of accessibility to the internet, yet there is a digital gap since people who live in rural and isolated areas cannot afford Internet connection. The Internet Society puts a lot of effort into ensuring that rural parts of the country have access to broadband Internet through a number of initiatives.





David Frautschy, Senior Director for European Government and Regulatory Affairs at Internet Society welcomed the participants remotely.

I apologize for not being able to attend in person, but I appreciate the opportunity to participate. In June, I traveled to Armenia to take part in the "Connect Unconnected Summit," another significant event and it was an amazing experience.

My friends have already remarked how crucial it is to have the Armenian IGF as a forum for gathering and debating topics related to the Internet with representatives of various stakeholder organizations.

We raise the issues and talk about how to make the Internet a more wide secure, and beneficial resource for all users. We are fighting against the fragmentation of the Internet because we think it should be available to everyone and everywhere, and we have developed the tools necessary to increase the public's awareness of the risks and what the community can do to keep the Internet safer.

Digital challenges, Solutions for society, government, and economy's digital transition



- **Hakob Arshakyan** – Vice President of the National Assembly
- **Robert Khachatryan** – Minister of High-Tech Industry of the RA
- **Nerses Yeritsyan** – Information Systems Agency of Armenia (ISAA) Foundation, Secretary of the Information Systems Council of Armenia
- **Moderator: Vahan Hovsepyan** – RIPE NCC, external relations officer

During the first panel on the topic: *Digital challenges, solutions for society, government, and economy's digital transition*, discussions were held regarding a number of issues, including cyber security, the role and functions assigned to the ministry in the 2024 budget regarding digitization, the quality and timeliness of the works in the presented areas, coordinated activity of legislative and executive authorities, and digitization.

Additionally, information regarding the projects and initiatives carried out by the founder of the Information Systems Agency of Armenia (ISAA) Foundation **Nerses Yeritsyan** was provided.

Creating an innovative digital environment is one of the government's top priorities, stated the minister of high-tech industry of the RA **Robert Khachatryan**.

The government has outlined specific measures in its five-year plan to achieve this goal. These include the introduction of a modern identification system, the digitization of public services, guaranteeing their online accessibility, boosting digital literacy, encouraging the use of digital and application tools, establishing electronic provision between legal entities and citizens' state and local government bodies, and a number of other programs.





Considering the country's history and technological experience, the minister claims that one of Armenia's most important sectors for development is the manufacturing of semiconductors. We have the proper human resources and we have to implement the manufacturing processes. To put Armenia on the map, we must begin with the easiest procedures and work our way up to the more difficult ones.

As stated by the prime minister of the Republic of Armenia, Armenia must serve as an intersection for international collaboration.

Moderator **Vahan Hovsepyan** brought up the topic of the evolution of telecommunications, objectives, and timelines. Opening up new routes to Armenia across the Black Sea from Europe is one of our ministry's primary goals, stated by Robert Khachatryan. He mentioned that now they actively working on it.

Although there are certain obstacles, we must overcome them in order to get on with the negotiations with the countries with whom the project is intended to be implemented.

It will present a significant potential for the country to develop into a hub for data and traffic transit.



Nerses Yeritsyan, CEO of Information Systems Agency of Armenia with a big working experience as a deputy president of the Central bank, minister of Economy RA , presented view of:

- Digital Transformation Concept,
- The main challenges of digital transformation,
- The importance of public-private dialogue in the digital transformation process.

Additionally, Mr. Yeritsyan stated that a law had been passed establishing an information system management agency, which was to be focused on data management, cybersecurity, interoperability projects, and the supply of trust services. Making the private sector participate in the processes of Armenia's e-society and e-economy development is, he is certain, one of the major challenges.

The vision of the agency is:

Open and quality data as a national wealth, to deliver streamlined, personalized and proactive digital services.



What is digital transformation for Armenia?

- Shifting the focus from technology platforms to services that improve day to day lives of people
- We focus on enablers & provide shared infrastructure/tools for public and private sector
- Bring services together into the national gateway, a marketplace for the public and private sector
- Public services are digital by default - involving digital transformation and inter-agency collaboration.

Digital Architecture of Republic of Armenia seeks to enable all aspects of the state to serve its citizens in a secure and convenient fashion.

- The public Agencies and private Sector form a centerpiece of the architecture
- They can innovate a pace that they their resources allow
- To provide 'joined up' services, the architecture includes 4 key 'layers' of cooperation

The layers he mentioned are:

- Electronic identity
- Delivery channels
- Integration layer
- Infrastructure layer



1. The **Electronic identity** layer allows citizens, officials, and enterprises to interact with all agencies using a single strong physical identity linked to several electronic identities of varying strength.

Currently, Mobile Sim Card ID and 'App based' ID systems are being created under the "Yes Em (It's me)" brand.

2. The **delivery channels** layer allows agencies to present the end user a unified user experience regardless of which agencies are involved in its implementation. The delivery channel layer will comprise of user centered design approaches, tools, shared applications and design systems, to ensure a consistent user experience.

Will include interfaces for the private sector to play a role too.

3. The delivery channels are enabled by the **integration** layer, that allows agencies a well-regulated access to data stored by other organizations enabling clear responsibilities for data quality and protection.

For users, this means the avoidance of re-submitting the same data to public agencies, as well as understand what data the public agencies hold about them.

4. The **infrastructure** layer links the agencies using shared secure physical and network infrastructure pooling the resources of multiple agencies to gain economies of scale and achieve technical interoperability.

What does this mean for the end user?

- Quick **access to services** based on their current life situation, via a simple website
- **Less time** searching for information on government services via multiple websites, Facebook groups or friends and family
- No need to provide identification papers or multiple photocopies: **identify yourself online** with your phone or ID card
- Less time spent on interacting with government bodies e.g. **visiting offices**, waiting in lines
- Confidence that data and information processed by government is secure
- More time to spend on real life



Soon, under the leadership of the Prime Minister of the Republic of Armenia, a Science and Technology Development advisory Council will be formed to precisely evaluate Armenia's digital issues and difficulties and offer prompt and efficient answers.

Hakob Arshakyan, the former first minister of the high-tech industry, was the one who centralized all the IT technology-related entities.

“World-class scientists, experts, and entrepreneurs will be involved in the council,” NA Vice President Hakob Arshakyan stated and confirmed at the 8th ArmIGF. The experience of utilizing it for state growth will be carefully investigated, and prompt solutions will be suggested.

We live in a time of digital transformation. Despite being cut off from the sea and facing the dangers of a regional blockade, Armenia has managed to turn the tide and utilize new chances presented by the Internet and technologies by leveraging its diaspora and internal resources.

According to **Mr. Arshakyan**, there is still a serious lack of experts in this area. We must keep up with all technological developments in order to comprehend how they apply to our country. We concluded that the prime minister needed an advisory council after becoming aware of all these problems.





Presenters discussed the schedules for the next projects and expressed dissatisfaction with the speed of work.

They said that even if the projects will take a long time, in order to see quicker outcomes and lower levels of unhappiness, we must learn how to work with the private sector.

According to **Nerses Yeritsyan**, the primary obstacle comes in establishing appropriate objectives and timeframes, along with addressing the process step-by-step to avoid repeated issues.

The minister of the high tech industry **Robert Khachatryan**, stated that as a citizen of Armenia, who uses the different digital services, he is also unhappy regarding the deadlines. From the other side, sometimes formulating an issue takes longer than solving it.

Mr. Arshakyan added that over the past few years, the Republic of Armenia has faced many challenges and extreme testing. In any case, he believes that this shouldn't be as a refuse. We will reach our goal more quickly and be considerably happier with the outcome if we put in more effort and spend more time developing.

Universal Acceptance as a part of
the Internet we want

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- **Maria Kolesnikova** – Coordination Center for TLD RU, Chief Analyst
- **Avetik Yessayan** – Shirak technology LLC, Founder
- **Aram Verdyan** – .am/ .huj Registry, ISOC AM board member
- **Moderator: Grigori Saghyan** – Vice Chair of “Internet Society” NGO

Grigori Saghyan, board vice-chair of ISOC Armenia NGO, started the session as a moderator.

Universal acceptance is not only an issue that concerns Armenia (Armenia has its own alphabet with non-Latin script and national top level domain .huj), but this issue concerns all countries. The UA must be promoted in all countries to enable communication and data processing in the languages of any country. An action plan to create a unified multilingual information environment was first announced in The Geneva Declaration of Principles and Plan of Action at WSIS, 2003 Geneva. The action plan can be interpreted as a declaration of intent and is not binding.

The development of the IDN domain space has led to the need to take into account usage of domain names with non-Latin symbols in the email system, Internet-enabled applications and devices.

In this regard, ICANN adopted the definition of Universal Acceptance <https://www.icann.org/ua> Everything has been put into place, however there are issues with EAI because not all email servers worldwide support it, according to the domain name system in the.am registrar. It was observed that one way to address the issue is to train system engineers on how to apply EAI globally.





A similar situation is observed in the Russian Federation, where the Cyrillic domain .рф is widespread, but not all systems support EAI stated **Maria Kolesnikova**.

Moreover, it was noted that a similar situation is observed on a global scale.

The solution to the problem appears

- ✓ in a wide notification of all system developers with the relevant RFCs
- ✓ to interest software developers within the country using the levers of government orders
- ✓ coordinate work with the world's leading software developers on the part of the state on issues of national characteristics of each of the national scripts.



The issue of using UA in devices was considered separately.

Suggestions were voiced to clarify this concept in the definition of UA, because the concept of “device” can be considered in an arbitrarily wide range, up to the concept of a microchip. Currently, the broad interpretation of this concept makes it almost impossible to implement UE in all devices. It was suggested that clarifying the definition of PM would make it possible to develop appropriate steps to solve the problem.

The situation when not all countries accept the concept of implementing PM raises the question of the advisability of implementing UA in a particular country, because the ultimate goal of universality will not be achieved.



The desirability of using software in all countries was noted; to achieve this, demand from society and economic feasibility, support from the technical community are needed - the development of appropriate encodings in software depositories.

The issue of adopting a binding convention at the interstate level within the UN/ITU, according to a number of participants, would be advisable, however, the practical implementation of such an approach requires studying this possibility.



Aram Verdyan, a board member of ISOC NGO, discussed emails that had domain names written in Armenian characters.

Standard programs (services) exist. Many of them have already used that feature and received updates. We have now finished testing emails using the mail server, and the results are positive.

We can send and receive emails using Google, which supports UTF-8. Support for UTF8 is essential for the systems to function.

He continued by saying that the government's participation in the UA readiness processes is crucial and that, despite the process's slowness, many corporations around the globe (Google, Microsoft, Facebook etc.) are working on it, so we must act now to be prepared.





How we can check if the Internet – enabled applications are UA ready or not?

Avetik Yesayan, Shirak technology LLC founder highlighted that in order to prepare the applications for the UA, he emphasized that ICANN collaborates with various businesses. Initially, we must comprehend what it is to be UA ready. There are several steps to it.

- You can register with a national domain and a working email address for public applications. It might be viewed as the first issue; the email should be recognized as legitimate by the system. Since the validation processes were standardized many years ago, email addresses typed in different national scripts are still rejected by many public applications.
- The application has to be able to process,
- To register in its data base,
- Visualize in the national scripts

What is WSIS+20, its importance in the digital age, Global Digital Compact

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- **Chris Buckridge** – IGF Multistakeholder Advisory Group (MAG) (remote)
- **Desiree Miloshevic** – RIPE Cooperation Working Group Co-Chair (remote)
- **Aleksey Sandikov** – IGC member, Parliament member of the RA
- **Moderator: Mikhail Anisimov** – ICANN, Head of Global Stakeholder Engagement for Eastern Europe and Central Asia



Mikhail Anisimov, the session moderator, greeted the in-person and virtual attendees and expressed gratitude to the presenters who spoke from a distance.

He said that the subject was Internet governance procedures and that there are now many talks regarding WSIS+20 taking place worldwide. He offered to discuss the future of the Internet Governance Framework and how it would develop.

WSIS+20 process, which is not yet very well known for the wide audience. He invited the first speaker, **Chris Buckridge**, to make the introductory part, to understand better what is going on, what to expect, what discussions are held in MAG.

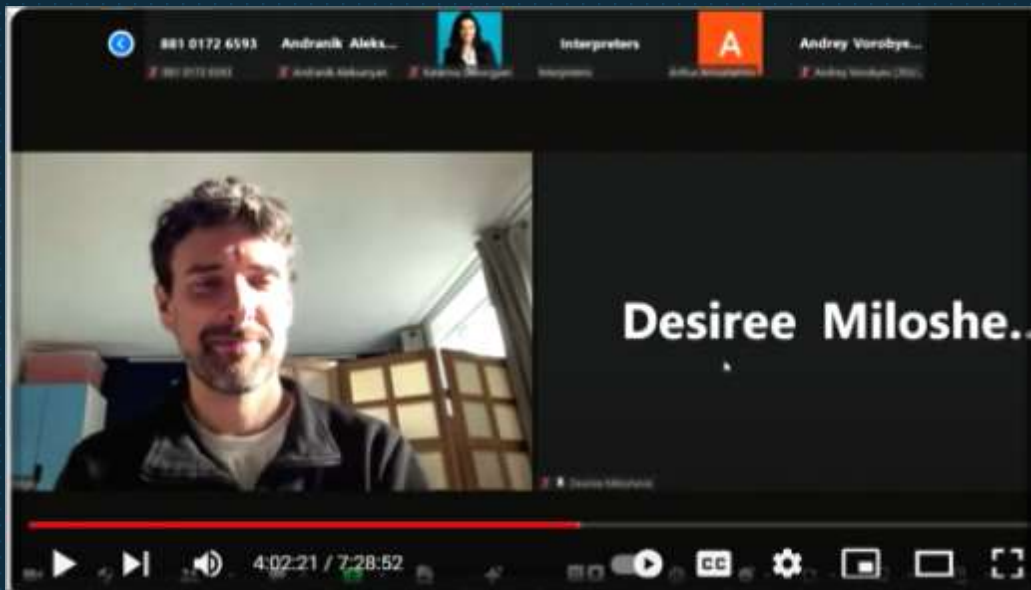
He also mentioned how crucial all of these WSIS+20-related processes are to ICANN, and that's why they are eager to discuss and educate in order to better assist the Internet community in understanding these processes.



Chris Buckridge expressed gratitude for the invitation to speak at ArmlGF.

There were two stages to the **World Summit on the Information Society (WSIS)**: one in Geneva in 2003 and the other in Tunis in 2005. For the first time, world leaders united to declare their "shared desire and commitment to build a people-centered, inclusive, and development-oriented Information Society." This was a clear political declaration on creating digitally connected societies that benefit everyone and utilizing information and communication technologies (ICTs) to further development goals.

As a result of WSIS, the IGF's mission was reviewed and extended twice: first for ten years (2016–2025) during the WSIS+10 review in 2015, and once more for five years (2011–2015).



The WSIS Forum has proven to be an efficient medium for coordination of multistakeholder implementation activities, information exchange, creation of knowledge, sharing of best practices and foster partnerships to advance development goals. The WSIS Forum continues to serve as an open and inclusive platform to ensure the common WSIS goals are met.

The WSIS+20 Forum is scheduled to be held from 27 to 31 May 2024, co-organized by ITU, UNESCO, UNDP and UNCTAD and co-hosted by ITU and the Swiss Confederation, with the support of remote participation.



Speaking on behalf of the RIPE community—formerly known as the numbering community—**Desiree Miloshevic** represented the RIPE Cooperation Working Group Co-Chair and the group's practice of the multistakeholder method, which essentially involves inclusivity and bottom-up consensus policy formation. She said that in addition to assisting the regional IGFs, the RIPE Cooperation Working Group was active in the UN's global digital compact program, which will be wrapped up at "the summit of the future" in September of the following year.

Since academia, the technical community, civil society, and the private sector are unable to negotiate there, the UN General Assembly organized it. For this reason, it is crucial that our communities now engage in dialogue with governments and inform them of the key commitments made within the Tunis WSIS agenda.

Additionally, a multistakeholder approach is used to address global public policy issues related to the Internet. This allows the institutions that will make future summit decisions to take into consideration the knowledge and experience of the private, civil society, and technical communities.

The coordination, preservation, and defense of the multistakeholder groups' inclusivity and their knowledge of global internet governance concerns are also crucial.

Mr. Sandikov said that he had the opportunity to take part in this year's global IGF in Japan, and that it had been a terrific experience and a chance to network with representatives of other countries and stakeholder groups. He continued by saying that there had been numerous conversations on the upcoming WSIS+20 review and that the last five years out of the twenty had been the most difficult and full of crucial trials.

A major challenge was the Covid-19 in particular. The shift to online processes, particularly for rural areas, brought up the issue of Internet accessibility. Not all families had the proper devices to get online.

Obviously all of the regionally occurring global processes demonstrate how crucial it is to maintain a balance in communication between the public, commercial, and government sectors as well as the Internet society.

Armenia continues to support the current multi-stakeholder, unified model of Internet management processes and will discuss it at the World Summit on the Information Society (WSIS+20) the following year, where the fundamentals of Internet governance will be revised, **Aleksey Sandikov**, deputy of the National Assembly and a member of the RA Internet Governance council interdepartmental committee, stated at ArmIGF 2023.



Artificial Intelligence in studying and academic process (pros and cons)

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- **Armen Ghazaryan** – Armenian State University of Economics
- **Sergey Abrahamyan** – Institute for Informatics and Automation Problems, ANA of Sciences, professor
- **Armine Martirosyan** – “Education Development and Management Foundation” founder
- **Sevak Sargsyan** – RAU, Head of Department of System Programming
- **Artak Khemchyan** – NPUA, Assistant of the Department of Information Security and Software, candidate of tech. sciences
- **Suren Edilyan** – Professional Mathematical Education Department, Professor
- **Moderator: Samvel Martirosyan** – *Founder of the ArmSec foundation*



The moderator of the session, **Samvel Martirosyan** welcomed the participants and the speakers of the session.

He highlighted, that it seems that people are worried about how artificial intelligence will affect education and that hiring students outside of the academic system could cause the rise of AI to reshape the established educational framework.

In fact, AI is a dynamic and ever-evolving subject in education. Even while some people might think AI doesn't exist in the current system, it is actually slowly finding its way into education.

AI projects or programs that directly involve students without official institutional involvement may be the cause for concern in this case, since they could possibly undermine long-standing educational standards. Artificial Intelligence initiatives have the potential to undermine traditional learning approaches and raise concerns regarding the credibility of the educational system if they start hiring students without the supervision of academic institutions.

This scenario highlights critical questions about how integrating AI could ensure high-quality and credible learning experiences while complementing established educational structure.



The Professor of the professional mathematical education department, **Suren Edilyan** stated that there are ten generations of artificial intelligence. The fourth generation is the one being used at the moment. It is our duty as educators and learners to realize that nothing happens in a straight path.

The students with the query ought to be the teacher's biggest concern. Particularly in technical universities, the instructor ought to highlight issues. Student projects have to be fully realized issues.

Real challenges for the community should be resolved by them. In this case, the educational system will be successful. We have to break free from the traditional methods of distributing knowledge, as Google and AI are far more efficient at it.



The volume of information is growing, and educators and students must organize this vast amount of data. The instruments that aid in processing the information appear in tandem with its volume. Students use those instruments first, and by the end of the university, a gap develops between them and their instructors.

It is imperative that educational standards be modified to align with the demands of emerging educational paradigms. If teaching algorithms was done in the past, then teaching how to construct algorithms is necessary for modern methods.

It is important to teach students to think critically and generate conclusions from the facts at hand as soon as possible. In that instance, implementing AI will advance the growth and effectiveness of the educational system, said **Sergey Abrahamyan**, professor of the institute for informatics and automation problems.



According to the professor of the Armenian State University of Economics, **Armen Ghazaryan** Artificial Intelligence (AI) has many advantages when developing evaluations and curriculum. Still, there are a disadvantages. Our quick adoption of these methods creates a problem: even if we get responses quickly, we are unaware of the underlying process involved in fixing problems. Improving our cognitive processes should be the first priority on the learning path.

The strengths of AI are seen in its ability to accurately create tests and effectively improve subject curricula. However, as we grow used of depending on these AI-driven solutions, an obstacle appears. When it comes to learning effectively, the focus should shift to developing and honing our cognitive skills.

To sum up, artificial intelligence is great at organizing academic material and creating tests, but there is a serious risk that it could overshadow the important process of learning. Thus, it becomes essential to find a balance between utilizing AI's efficiency and giving cognitive skill development top priority in order to promote an effective learning process.





Armine Martirosyan, “Education Development and Management Foundation” founder stated that the Artificial Intelligence (AI) tools have been integrated into the secondary school system. The Government of RA made a decision in 2021 that approved new standards for the education system, which is already transitioning from knowledge-based to ability-based schooling.

During the COVID era, the integration of AI into the educational system quickened. With the introduction of CHATGPT, school-age students can now utilize it to help them solve challenges.

More than 3-5 years have passed since we first saw this phenomena. A synchronous adaptation issue affects the teaching staff. Identifying the author of a work at our university—whether it be an AI or a student—is rather simple, particularly in the IT department, said **Artak Khemchyan**, Assistant of the Department of Information Security and Software



Sevak Sargsyan, the head of department of System Programming of RAU, thinks that it is imperative that the educational system integrates artificial intelligence. Instead of banning its use, we should acknowledge its enormous potential as a tool. It's critical to realize that while improper use of AI might have negative effects, good use can have major positive effects. As a result, this concept ought to be the foundation of our educational system from the beginning. Without compromising the fundamentals of conventional education, we should adapt and modernize it.

By using AI wisely, education can become more accessible. The scientific knowledge of universities should be actively used to develop related technologies, encourage creativity, and improve the educational process itself.

It's also critical to recognize AI's limitations. If false information is continuously fed into the system, it may eventually be accepted as true, affecting the way it responds to future input.



**Digital Inclusion
(ISOC Armenia chapter's activities)**



- **Karen Erznkanyan** – “Smart City” NGO, leader of ISOC Armenia Chapter IoT program
- **Yervand Galoyan** – OkayCode LLC, director
- **Igor Mkrtumyan** – Internet Society NGO board chair
- **Vahan Misakyan** – leader of ISOC Armenia Chapter library program
- **Moderator: Vesmira Harutyunyan** ISOC Armenia Chapter Board Chair



Vesmira Harutyunyna, ISOC Armenia chapter board chair, presented what kind of activities were initiated during 2023.

The ISOC Armenia chapter is very grateful for the ongoing assistance and partnership with the global ISOC.

She stated that ISOC Armenia chapter's leaders always try to involve in different initiatives representatives from all stakeholder groups, such as government, private and technical sector, civil society etc.

As a part of the Global ISOC, the Armenia chapter promotes the organization's goals and objectives, like **"The Internet is for everyone!"**. Our goal is to help all people in our country to get access to Internet. In some countries it even considers as human right to have access to the Internet, highlighted **Igor Mkrtumyan**, board chair of the ISOC Armenia.

Due to inequalities in money, there exist digital gaps between rural and urban communities. Approximately 50% of people on the planet are still not online. Among those offline, low-income families make up the majority.



Mr. Mkrtumyan board chair of the Internet Society NGO, presented the activities ISOC Armenia chapter deals with.

Our projects mostly focus on people with disabilities.

We run programs for retired people, former athletes, and visually impaired groups.

We set up digital literacy courses for the most vulnerable groups. They were taught about Internet literacy, online businesses, and online safety guidelines. It helped some of them to run online small shops on social media platforms and started earning money. It shows how important is for them to have internet accessibility.

For former athletes, we have developed a website, 64+, where they may share information about themselves. In addition, we donated the Gyumri State Library four PCs and WiFi routers so that people could access the Internet and take advantage of the countless opportunities it provides.

Igor Mkrtumyan stated the importance of this kind of initiatives for our country's future.

He provided the details regarding the “IOT smart botanic hackathon” that was planned on November.

In recent years, the Yerevan Botanical Garden has changed its approach. In addition to being a unique scientific center, it strives to become a center for the application of eco-education and clean technologies, as well as an accessible and comfortable recreation area for the citizens of Yerevan.

A number of projects aimed at the improvement of the botanical garden are being implemented before. The goal is to develop ideas for smart solutions for the Yerevan Botanical Garden, which will help make the processes of managing, caring for and serving the visitors more efficient with the use of modern technologies.



One of the biggest projects initiated by ISOC Armenia chapter was: the Creation of rural community centers in the Lori Region of Armenia, based on digitized rural libraries with broadband Internet, WiFi access points, videoconferencing capabilities, and training community in digital skills. **Vahan Misakyan**, the leader of library program explained the problems and the objectives that were set while applying for the grant.

Armenian rural families cannot afford to have broadband Internet access at home. Providing remote communities with inexpensive internet connectivity is one of our objectives.

The issue of Internet access in rural areas is made easier by rural libraries that are equipped with broadband Internet, WiFi, and Internet connection terminals. These libraries are evolving into community network nodes.

4 objectives have been set to implement the project

1. Provide broadband Internet access to rural libraries.
2. Turn rural libraries into community Internet centers by providing them with Internet terminals, WiFi access points, and videoconferencing devices.
3. Digitize rural libraries by providing them with computers with preinstalled digitized library software.
4. Train the community in digital skills.

***We may say that we accomplished our objective.
Around 14 libraries are already connected and serving as community Internet centers.***





Karen Erznkanyan, “Smart City” NGO, leader of ISOC Armenia Chapter IoT program, reported that another significant project had been started and completed successfully.

UNICEF, “Internet Society Armenia Chapter” PO, and “Smart City” jointly organized free two-month course on the use and design of “Internet of Things” equipment for young individuals between the ages of 14 and 18, more than 80 participants.

It was a great chance to learn how to make smart devices in practice and use them in daily life. Internet of Things seminar speakers explained :

- how to design smart devices using Arduino board,
- how to connect to cloud servers and configure them,
- how to manage smart devices through the Internet.

In addition to Yerevan, Hrazdan, Gyumri, Vanadzor, and Goris hosted the course. There were also youngsters with physical disabilities attending. Certificates of participation were given to each and every participant as well as coach.

The “Internet of Things” course participants worked hard to create a new voice assistant that is available in Armenian and has an Armenian name. It was long before “Anahit” was even an idea. The setting and chance to do so were the “Internet of Things” course. The device was finished in three months with the help of the course participants, as stated by trainer and programmer , the director of OkayCode LLC **Yervand Galoyan**.



“Anahit” can readily interpret and follow directions in a variety of Armenian dialects, including turning on and off lights and other electrical devices and will serve as their assistant at the House of Culture for the Blind’s Smart room. The experimental example of it, which is now carrying out limited functions, was shown in the Internet Society Armenia chapter’s office. The potential of “Anahit” will be increased in the near future.



ArmlGF 2023 in numbers

Participants

- In person - 118
- Online - 12
- Volunteers - 10

- Panel discussions - 5
- Presentations - 4

Stakeholder Group

- Government - 14%
- Intergovernmental Organization - 11%
- Civil Society (Includes academia) - 24%
- Technical Community - 27%
- Private Sector - 13%
- Press/Media - 12%

Gender

- Male – 45%
- Female – 55%



Media coverage – hashtag #armigf2023

The event was streamed online via Zoom and YouTube. Journalists from both traditional media and social media covered the event as well.

<https://shorturl.at/nptz4>

<https://shorturl.at/hkHN2>

<https://shorturl.at/cswO1>

<https://shorturl.at/fkpS2>

<https://rb.gy/gws23w>

<https://rb.gy/tieqs1>

<https://rb.gy/701xqa>

<https://oragir.news/>

<https://rb.gy/3gfbnb>

<https://rb.gy/zvjq0s>

<https://armenpress.am/>

<https://armenpress.am/arm/>

<https://168.am/>

<https://hightech.gov.am/>

<https://livenews.am/>

<https://www.aravot.am/>



Video – media coverage

<https://www.youtube.com/watch?v=1SLfrNjl8Do>

<https://www.youtube.com/watch?v=EX4ZE2DSKps>

Facebook official page

<https://www.facebook.com/isocarmeniachapter>



Thank you!

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We also extend our gratitude to all of the participants in the conference, volunteers, moderators, rapporteurs, interpreters, journalists, photographers, designers, printing service providers, and other supporters who made **ArmiGF 2023** a huge success.



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