2022 Guatemala, IV Annual Internet Governance Forum
Guatemala, September 2022

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Introduction

In this document you will find the conclusions of the VI Guatemala Internet Governance Forum. Some coincide with the conclusions of forums from previous years. This is not a coincidence, since the conditions of the Internet have not changed in the legal aspect; there is not yet a legal framework that prevents cybercrimes from being committed against national domains, on the contrary, the malicious Internet user is aware of this legal vacuum, which has caused the number of attacks originating from our country, and our infrastructure keep increasing. This topic will be discussed later.

Once again, and for the sixth consecutive year, the Governance Forum served to bring together people from all social strata and allow them to learn and exchange their ideas, opinions, and the experiences of all kinds that users in Guatemala live when browsing the networks or in the Internet infrastructure of our country.

Six years of uninterrupted Internet Governance Forums in Guatemala

The Internet Governance Forum in Guatemala has been held uninterruptedly since 2017, shortly after having complied with all the legal requirements established by the Government of Guatemala for the operation of a non-profit civil organization, it legally established the Internet Society Guatemala Chapter, as one of its activities. The Forum has been successfully carried out in Guatemala City, and in the municipality of Fraijanes, in the Department of Guatemala. Face-to-face forums were held three times, with the presence of more than 250 people each time, and several thousand in streaming, and another three times virtually, from 2020 to 2022, due to sanitary restrictions to prevent the transmission of COVID 19; measures imposed by the Ministry of Public Health and Social Assistance of the Government of Guatemala.

The Organizing Committee, being "Multi-Stake Holder", has carried out the events in multiple places, such as hotels (2017), University Campus (2018), Headquarters of Institutions that are strategic partners (2019), and the last three, as already stated, virtually.

Our first IGF was held on July 27, 2017, at Casa Ariana, a Convention Center located on Avenida de la Reforma, zone 9 of Guatemala City, in the hotel district. It was attended by more than 350 people. The Youth Observatory were represented. We had representatives

from UNESCO, three business groups, two Government institutions, Universities, the Technical Group, and Civil Society.

Our stake holders were very enthusiastic about the opportunity of presenting their ideas and experiences, we had so many people interested, that we had three simultaneous discussion rooms from 9 am to 5 pm. The Public Policy, and the Cybersecurity forums were completely full. We had to lend chairs to the Administration of the Convention Center to accommodate all those interested in these two issues.

The main objectives were to make known what Internet Governance is in every sense, develop capacities; and facilitate the discussion and exchange of ideas and opinions of all attendees. ISOC and IGFSA were our main sponsors.

Our second Forum was held at the Universidad Del Istmo, UNIS, in the municipality of Fraijanes, 27 kilometers from Guatemala City. More than 300 participants attended, in the live broadcast we had more than 2 thousand people participating.

We had six main subjects of discussion, which were divided between two auditoriums of UNIS, and a meeting room. Of these, the ones with the largest audience and active participants were "Protection of Internet users" and "Protection of children and adolescents"; There was also a very interesting and useful dialogue on the Cybercrime Bill that was currently under discussion in Congress.

UNIS is located outside Guatemala City, tom help all those interested in participating, we rented buses to take university students from the headquarters of the University of San Carlos de Guatemala, some 37 kilometers away; and two additional points in the City, a trip of over an hour crossing the City from the west to the east. Once again, ISOC, IGFSA and local sponsors helped us cover lunches, snacks, transportation and other expenses.

The Third IGF was held at INTECAP, the Technical Training and Productivity Institute, located in the heart of the Civic Center of Guatemala City, the institution with the largest participation of people seeking training in a specific area, or learn a trade. It receives funds from employers, employees of the public and private sectors.

This was held on October 24, 2019. We once again had a large turnout of more than 300 people and around 2,000 people connected to the streaming transmission, which originated using the Institute's multimedia facilities. Holding this event at INTECAP was a great advantage, we were in a central location in the City, ample parking for all participants, specialized facilities for meetings, and an excellent food service provided by the students of the Institute's haute cuisine school.

Again, most people attended the Public Policies and Cybersecurity Forums. Our themes were completely aligned with those of the Latin American IGF, which that year was held in Argentina; Data governance, digital inclusion, security, stability and resilience.

Our surprise was IGF 2020, which was a major setback for our Internet Governance Special Interest Group.

In February, after a successful presentation of our Plan, and having developed an ambitious Plan of Action for that year, we were unable to carry out the preparatory meetings that we planned at the beginning of the year because the country was closed, a curfew was imposed, we did not have the freedom to travel from one Department of the Country to another, for fear of spreading the Coronavirus. This left us with the only option of holding a virtual forum. We had to learn to hold meetings of this type, to handle the different platforms.

Despite our efforts, we were unable to successfully implement our electronic discussion forums, which were our proposal for discussions of the issues that have captured the most attention of Guatemalans, public policies and cybersecurity. Our people had other priorities and did not want to participate.

Finally, in September we had our IGF in virtual form. The topics that most interested our public were "Education from the 21st century onwards", and "Law against Cybercrime and Electronic Government as a right of citizenship".

Last year also brought many gratifications, we launched an Internet TV program, we had 8 broadcasts, each one dealing with different topics of our Forum. This experience gave us another perspective, which helped us design a strategy for this year's IGF. Not everything was bad in 2020, it was a great challenge that demanded a greater effort from us and taught us great lessons.

From the lessons learned in 2020, when the COVID-19 pandemic took us by surprise and we were unable to fulfill our plans; We developed a strategy to carry out our event in the best way, counting on the experience of the previous year, with more strength, more encouragement to share our experiences and knowledge throughout the country.

Also in 2021, we hired an expert in social communication to design an institutional communication strategy that would allow us to reach a broader audience using social networks. Our expert presented a strategy, which was implemented, and allowed us to have a greater presence in electronic media. This included the revamp of the website and

electronic forums to capture the interest of the public and answer specific questions according to the topic that interested people.

The way to reach our public was through conversations on the topics identified as of greatest interest. Every week starting on October 20, 14 talks were held on each of the proposed topics, although in the case of the topic of Net Neutrality, there were four talks, one every week from October 21 to 11. November, until culminating with the closing on November 22, which, naturally, was carried out virtually. Each discussion lasted 90 minutes.

For 2022, we copied the same modus operandi of 2021. We planned 15 conversations, but 11 were carried out. The topics were concentrated in these thematic areas:
- Digital Transformation;
- Public Policies;
- Cybersecurity;
- Education;
- Network Neutrality;
- The Role of Block Chain Technology in the Digital Transformation.

The main topic for the IGF last year was the Digital Transformation of Guatemala, two talks were held dedicated to presenting success stories in countries of the Central and South American region, local regulations, and the regulations proposed by the ITU for its successful implementation.

Strategy used for the development or the 2022 IGF

As already mentioned before. For this year, we used the communication strategy developed for us, that would allow us to reach a broader audience using social networks; and also to have a new corporate image, both for the National Chapter and for its main activity, the IGF.

The strategy was based on better and greater dissemination through digital media using the IGF accounts on Twitter, FaceBook, and Instagram. Also, in a renovation in the image of the IGF website, and the Forums.

As a result, there was a broader coverage of the events, and it was possible to reach, thematic and institutional segments that had not been possible to cover before or had not been reached. An example is the participation of other State institutions, Academics and Civil Society Organizations that had not previously participated.

Since the beginning of the year, virtual meetings began with the stakeholders who accompanied us in previous years. Some were unable to participate this time because as confinement restrictions were lifted and the return to face-to-face activities began, time was scarce, and it was more difficult to participate. This forced us to look for new strategic partners.

The following partners participated:
- Universidad Del Istmo;
- Ministerio de la Defensa Nacional;
- Ministerio Público;
- Ministerio de Gobernación;
- Comercializadora de Negocios de Campus TEC;
- Asociación de Colegios Privados de Guatemala;
- Capítulo Guatemala de Internet Society;
- Secretaría Contra la Violencia Sexual, Explotación y Trata de Personas;
- Fundación Sobrevivientes;
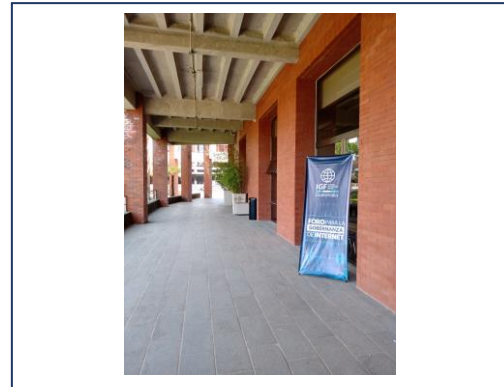- ES Consulting.

We also have the participation of the following institutions, which supported us with exhibitors for different forums scheduled throughout the IGF cycle
- Oficina Regional de la UIT para Centroamérica;
- Universidad Mariano Gálvez;
- Digicel El Salvador;
- IDS de Guatemala;
- Sistemas Aplicativos, S. A.
- Instituto Nacional de Ciberseguridad de Guatemala;
- Universidad de Asunción, Paraguay;
- ICAAN at Large;
- Haru Security;
- Electronic Frontier Foundation;
- Technology Core Costa Rica;
- Ministerio de Transportes y Comunicaciones del Perú;
- Superintendencia de Telecomunicaciones de Guatemala;
- Acceso Digital, S. A.
- Comisión Nacional de Ciberseguridad, CONCIBER;
- Comisión Presidencial de Gobierno Abierto y Electrónico, GAE ;
- Cyber Seguridad, S. A.
- Consultores particulares de Panamá y Paraguay;
- Facultad de Ciencias Médicas de la Universidad de San Carlos;

- Grupo Asesor MAG del IGF de la ONU;
- ISOC LATAM;
- Allied Global;
- Secretaría de Innovación Tecnológica de Argentina.

Kick Off of the 2022 IGF

For the first time since 2019, we had Kick Off, this was a success, it took place at the Universidad del Istmo, in Fraijanes, same we held the 2018 IGF, and the 2017 ISOC Intercommunity.
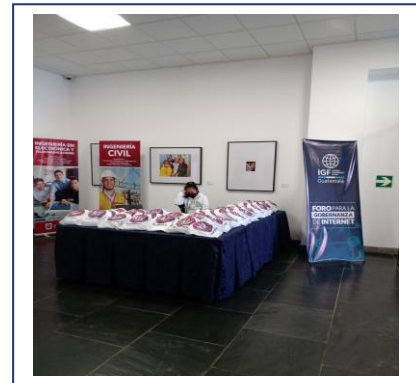

It was held on August 4 at the Ficohsa Auditorium of the Universidad del Istmo, we had a large participation of young students from different Schools of the University, especially Legal and Social Sciences, and Engineering; and special guests. After the event, a lunch was offered to the participants.

The Dean of the School of Engineering, Engineer Otto Castillo made the Opening Statement. Álvaro Gálvez, president of the Guatemala Chapter of ISOC gave the welcoming words of the event.

We emphasized the importance of starting a digital transformation at all levels in Guatemala, two Guatemalan experts presented their successful experiences in this area; Fernando Valdéz, Consultant in Organizational Development, who spoke on the topic "Business architecture as the basis of digital transformation", and Óscar García, CTO of Allied, presented the success story of Allied in its transformation into a service provider company development worldwide. They were accompanied by Olga Cavalli, Undersecretary of the Technological Innovation Secretariat of Argentina, who presented the reasons for the importance of the broad participation of all sectors involved in the digital transformation of a country; Christian O'Flagherty, Vice President of ISOC LATAM, gave a brief presentation on the role of the ISOC chapters in the region, and Internet Governance, and Fred Clark, National Coordinator of the IGF of Guatemala, gave a review of the five previous IGFs. Estuardo Sandoval, director of the School of Electronics and Telecommunications, oversaw thanking the experts and participants, and gave closing of the Kick Off.

Forums

This year the main topic was the Digital Transformation of Guatemala, the organizers proposed six thematic lines, from which they derived proposals for the individual forums in August and September, beginning on August 5, until the Closing of the IGF on September 29.

- Guatemala´s Public Policies:
    - Legal Framework of the Internet and Information Technology.
    - Economic, Social and Technological Situation of Guatemala.
    - NFTS in Guatemala, presentation of Projects.
    - Update on the Open Data Agenda in Guatemala.
    - Update on Open Government, Electronic Government and Digital Agenda of Guatemala
    - Telecommunications in Guatemala.
- Cybersecurity:

- o   Current status of the Cybersecurity Strategy in Guatemala.
- Digital Transformation
    - o   Examples of the Digital Transformation in neighboring countries.
    - o   Digital Transformation Regulation:
        - ▪   South America,
        - ▪   ITU Proposal.
- The Teacher and the Digital Transformation of Guatemala.
    - o   The reinvented teacher, learning to reinvent yourself.
    - o   The STEAM Inclusion in the Educational Digital Transformation.
    - o   Synchronous or Asynchronous Connection in the hybrid model of education.
- Defense of Network Neutrality in difficult times.
    - o   Blocking of the Internet and changes since February 2022.
    - o   Protection of children, teens, and vulnerable people on the Internet.
    - o   Infodemic, the cancer of misinformation and fake news.

- The use of BlockChains in the Digital Transformation of Guatemala.
    - o   Relevance of USDC as a reference currency based on the blockchain.
    - o   The legal and technical feasibility of implementing public contracts based on blockchains. Presentation of a Road Map.

Of these thematic lines, we had 11 forums, which are detailed below, and which were used for consultation on issues that concern our stake holders and our society.

Public Policies:

Like every year, this was one of the most anticipated subjects, with the highest audience, five talks were held on important technological issues of our country, five weeks of very interesting talks.

August 5: Economic, Social and Technological Situation of Guatemala

The presenter was Charles Hess. He began by saying that, as a country, Guatemala has the advantage of having a young population, the majority of which is 53%, millennials, centennials, and generation Z. This population has already been exposed to technology even before the pandemic, this can be taken advantage for the development of the country, since it would not be necessary to train people massively because they already use web and mobile applications; economic growth would be expected, especially in the rural areas of the country.

There is a growth of BPO and Nearshore companies due to the strategic location of Guatemala,

and the segment of the population that speak English. It would be expected that the opportunities that are taking place outside the metropolitan area would help prevent the migration of young people to other countries, especially the United States.

Currently the phenomenon of the migration of young talents, or "brain drain" is occurring, the goal is to avoid it, one way to appease it has been through BPOs, the solution is to create the conditions for more entrepreneurship, if the goal is to keep the talents in the country. Another factor that is helping, is the fact that technology is becoming more and more wireless, which is an advantage, the service coverage is greater and it requires less investment, and despite the fact that it needs to reach more populated places, the growth is slow but steady.

There are around 13 towns that have been growing by investment in technology, urbanization has been increasing, and consequently there are more telecommunications infrastructure. In the area of Education and technology, there are many shortcomings. It is a key factor to develop at all levels, especially the adoption of technology.

Conclusions:

• There is a noticeable growth in the number of BPO companies.
• Guatemala has a geographical advantage for the establishment of Nearshore companies.
• Most of the employees on this sector are young people, in many cases this is their first job, it is their entry into a productive life.
• Investment in technology has not stopped despite the pandemic, although there is still a lot to invest.
• Wireless technology continues to penetrate the interior of the country, at a lower cost than fiber, and at a faster rate.
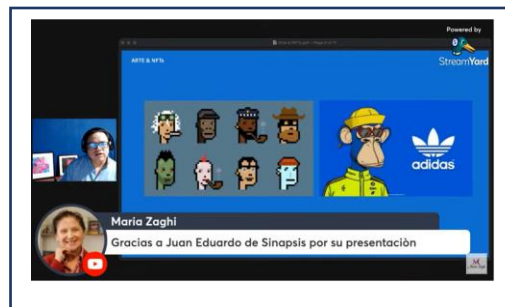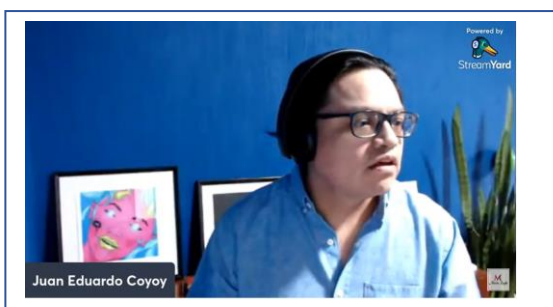
Recommendations:

• Support the BPO sector, it is a permanent source of work for young people.
• Promote education with a strong technological component at the school level-

• Support the development of Fintechs, they are a good opportunity for development and economic growth.

• Create the economic, financial, and technological condition, to promote more entrepreneurship in the technological area. There should be no need to look for better living conditions in another country.

August 18: NFTS in Guatemala, projects presentation:

In this forum, three exhibitors participated, all experts in their own specialty, who presented their projects related to NFTs, Non-Fungible Assets, which use Blockchain technology to certify the authenticity of the assets, therefore, they cannot be copy, they are unique.

They presented projects related to Art, Social Benefit Projects, and the importance of adopting this new technology using community networks. Non-Fungible Assets are in an incipient state in the country, and have great potential, they are opening the door to new opportunities for everyone. As the speaker Juan Coyoy explained, Guatemalans can take advantage of this new opportunity, they can create freely and make their own collections, as if they were traditional artists.

Conclusions:

• This is a new opportunity that is presented, especially to artists and creatives.
• An experienced graphic artist can become a creator of NFTs, like Juan Coyoy.

Recommendations:

• Those interested should get involved and use this new technology to publicize their artistic works.
• Create groups of artists and establish virtual Art Galleries.
• Increase the coverage of the Broadband Internet service in the country to allow artists from all the parts of the country to have access, to establish their own communities, make their artwork known and have the opportunity to sell it.

August 25: Update on the Open Data Agenda of Guatemala

The speaker at this forum was Ms. Yuri Castro, Director of Information Technology of the National Secretariat of Science and Technology, who announced the progress of the work that has been carried out in the Open Data Agenda of Guatemala. The Open Data Committee was born from commitment number 5 of the Third Open Government Plan, they began by creating a Portal, and developing a National Open Data Policy. They are working with various State institutions, including some Ministries, but only with the Executive Branch. The Open and Electronic Government Commission is the one who summons the institutions to participate.

Conclusions:

There is an Opend Data National Committee, backed by a government agreement.
• The Open Data Portal only includes data from the Executive Branch.
• Sensitive, national security data cannot be published.

Recommendations:

• It is necessary to have a Data Protection Law to safeguard the privacy of citizens.
• A new Open Data policy must be defined.
• We must promote the demand for data with the public.
• Incorporate the Municipalities and the other State Organizations like Congress and the Courts, to the Open Data Portal.

September 1: Updates in Open Government, Electronic Government and the Digital Agenda

The speaker was Carmelo Durán, Executive Undersecretary of the National Commission for Open Government and Electronic Government. He informed about all the work that the Commision has done, especially regarding the Digital Agenda of Guatemala, they are

working on the second version. 22 institutions from the private sector have participated, and another similar number from the government sector; no participation from the academic sector was achieved. This agenda was linked to the Fifth Open Government Plan, which consists of twelve commitments, and which has already been agreed upon.

More institutions are being invited to have greater representation, especially the academic sector, which is an Agenda for the entire country.

Conclusions:

• There is a Digital Agenda in Guatemala, it is a living document, in the process socialization with all sectors of the Government, and constant update.
• Currently, work is being done on the second version of the Digital Agenda.
• The Second Version of the Digital Agenda includes 12 commitments that have already been agreed with all the sectors that participate in this initiative.
• The National Cybersecurity Commission, CONCIBER, is working with the private sector, not just the government sector.
• The participation of more participating sectors is good, however, it can cause problems when seeking consensus and delay the achievement of objectives.

Recommendations:

• Organize events to socialize the document at a national level.
• Keep the document updated, as requested on the second commitment of the Digital Agenda.
• Seek a greater participation of actors in the Agenda, especially the Academic sector.
• Seek authorization for an adequate budget to publicize the Agenda, travel inside the country and promote it.

September 8: Telecommunications in Guatemala

This conversation generated a lot of expectations, because weeks before, the Telecommunications Superintendence announced its interest in auctioning frequency ranges to start the 5G bandwidth service. The participants were Rodolfo Letona, Vice Minister of Telecommunications of the Ministry of Communications, Infrastructure and Housing; Marco Antonio Baten, Superintendent of Telecommunications; José Raúl Solares, CEO of the company Acceso Digital, and former Superintendent of Telecommunications; and Wilmer Azurza, an expert from the Supervisory Agency for Private Investment in Telecommunications of Peru, OSIPTEL, an organization that promotes competition in the telecommunications market, and the empowerment of users, in a continuous, efficient and timely manner.

The topic that captured the most attention was the state of telecommunications in Guatemala, the way in which the authorities of the Telecommunications Superintendence, plan to carry out the auction of frequency ranges to provide the mobile 5G service.

Raúl Solares spoke on the topic of Community Networks, which are already being implemented in the country. Wilmer Azurza disclosed important aspects of the broadband service in Peru, the role of the regulatory entity with the services provided by operators in that country.

Conclusions:

- The Superintendence of Telecommunications has started the process of identifying frequency bands for the 5G Mobile Internet service.
- Community Networks have been in other countries a good alternative to reduce the digital gap.
- There are international organizations that can finance Community Network projects.

- The Superintendence of Telecommunications is already working in the development of the Telecommunications Agenda of Guatemala.
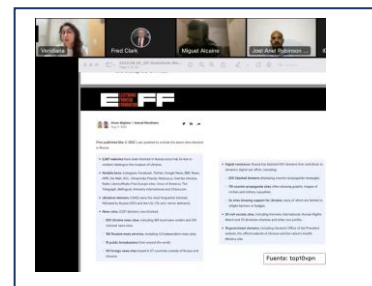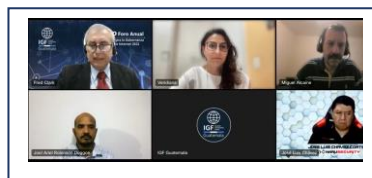
Recommendations:

- Develop a "coverage map" to identify which communities do not have broadband Internet service.
- Prepare a National Broadband Plan, as Peru did, to promote the development of the Telecommunications Sector, especially the Internet Services Sector.
- Meet with possible stakeholders to integrate a national commission or technical table to prepare the National Broadband Plan in conjunction with the Superintendence of Telecommunications-
- Identify international organizations that grant credits and non-reimbursable funds to promote projects to establish Community Networks in the country.

Network Neutrality:

There were three Forums, with a large participation of guests from abroad, from the United States to Paraguay.

August 24: Blocking the Internet and the changes since February 2022

This discussion included the participation of four experts, Veridiana Alimonti, Associate Director of Policies for Latin America of the Electronic Frontier Foundation; Miguel Ángel Alcaine, Director of the ITU Regional Office for Central America, Jose Luis Chávez, CEO of Haru Security, and Joel Ariel Robinson, ICT Consultant based in Panama.

On this forum, this subject was discussed as how was the Internet before the invasion of Ukraine by Russia, and after. In February blockages, disconnections began to happen, and false news and misinformation proliferated. They mentioned the censorship that the Internet has experienced since that day. The censorship that we have seen is in many areas, politics, freedom of expression, issues related to the development of the war. It

was mentioned that the most common types of blocking are based on the IP number of the network, the URL, on the DNS, and on deep packet inspection. Censorship violates the guiding principles of the Internet such as a Free and Open Internet, Neutral, without privileges, without discrimination, in other words, the principle of Net Neutrality was broken. It is principle, by which Internet traffic should be treated equally, regardless of its origin and type, has been violated. Censorship, interference, shutdown of IXPs, social media platforms and apps, and blocking have prevailed.

Conclusions:

• Russian authorities blocked Internet access, they disconnected IXP blocking access to information.
• The actions taken unilaterally by the Russian authorities have created enormous uncertainty, there is no certainty of what is really happening in Ukraine and in Russia. There are two versions of the same event.
• Social Media platforms are limited in Russia.
• Hundreds of cyberattacks have occurred on targets in Ukraine and in countries form the NATO alliance.

Security, has risen enormously since the events of the was between Russian and Ukraine. Many companies and institutions have opted for the purchase and installation of this Cybersecurity equipment.
• The blockade has also affected Russian platforms, which have been blocked by many countries, thus increasing disinformation.

Recommendations:

- Stay vigilant and report blocking of internet sites, apps, and social media platforms.
- Develop regulations to be observed by all Internet providers to ensure that they are not censoring content, blocking sites and applications.
- Disseminate the Network Neutrality principles to encourage the general Internet user public to denounces when they are violated.
- The Superintendence of Telecommunications and the Consumer Protection Agency should work together on a common agenda to work on issues that affect consumers, in regulations to ensure Network Neutrality, compliance with contracts signed with consumers, and quality of service, broadband service.

31 August: Protection of children, teenagers, and vulnerable people on the Internet.

This forum included the participation of four expert women, each one on the topic they presented, all of them talented. We had an excellent forum.

This forum included the participation of four expert women, each one on the topic they presented, all of them talented. It was very well down.

They talked about and showed real life examples of the different ways cyber predators contact vulnerable people. It was good to know that the State of Guatemala has included these crimes in the Criminal Code, child abusers can be prosecuted, and sentenced, for crimes including Seduction of children and adolescents through the use of Information Technologies, the violation of the sexual intimacy of minors, blackmailing children or adolescents, child pornography, admission to shows and distribution of pornographic material to minors; sale or dissemination of child pornography, and possession of children´s pornographic material.

Conclusions:

- Predators make false profiles to deceive young people and children. They usually pose as boys or girls, depending on their preference, it is also common for them to have several profiles.
- The worst consequence of these crimes is the kidnapping or sexual abuse of minors.
- Predators identify vulnerable groups of people to achieve their evil goals.
- Predators use authentic social media platforms like LinkedIn to contact people, before moving on to more personal platforms like WhatsApp.
- You can't block 100% of commonly used programs, games, sites and emails. What is uploaded to the Internet can no longer be deleted, stays there forever.
- The State of Guatemala has institutions such as the Secretariat against Sexual Violence, Exploitation and Human Trafficking, SVET; and the Public Ministry to protect and prevent vulnerable groups against these dangers.
- SVET has already instituted mechanisms to achieve its objectives, applications, website, emergency telephone numbers to report illegal acts.

- The existing digital divide does not allow the Government Institutions like the MP and SVET them to reach 100% of the communities in the country.
- To alleviate this lack, they have a mobile unit with which they go to all the departments of the country.
- Our Code of Criminal Procedure contemplates behaviors identified for the criminal prosecution of sexual offenders of minors.
- The Public Ministry of Guatemala deals with cybercrimes against minors in a comprehensive way, it has specialized personnel.
- Teenagers use their own language, slang, and jokes, they also refer to abbreviations, which are usually in English.
- There is a generational gap in the use of Information Technologies, social networks, the Internet.
- The speakers report an increase in cases of cyber violence every year, but especially since the start of the Covid 19 Pandemic in 2020.
- National studies have been carried out on the use of social networks, with the collaboration of international cooperation.
- Regardless of whether they know the person who is requesting "friends" on social networks, adolescents and young people generally accept them, creating a risk for themselves, since many people use false profiles.

Recommendations:

- Raise awareness among groups of parents, children and young people in each of the cases, to identify, avoid them to be victims of these problems.
- Teach children and adolescents that what is right or wrong in real life also applies in cyberspace.
- Parents should learn how to use technology to block websites with questionable content, filter content, set browsing time limits, monitor browsing history on the devices their children use, and start protecting them.
- Use tools to filter and block sites, content. There are tools that use tables, among them: Google Family™, Family Link™. These are installed on mobile phones and computers.
- Limit the number of hours that devices can be browsed, disable the option to install new applications on devices used by minors.
- Continue carrying out awareness campaigns aimed at target groups, such as children, young people and vulnerable people.
- Form alliances with more government entities, civil society institutions, and International Organizations to achieve greater coverage and publicize ways to prevent these problems.

- As new forms of cyber abuse against the vulnerable population appear, they must be included in the Criminal Procedure Code so that the aggressors can be punished.
- Parents should improve the communication with their children, pay close attention to their conversations, slang terms and abbreviations, as they may refer to masturbation, sexual activity with adults, or illegal activities involving child pornography, sexual activity.
- Be careful when accepting friendships with people you don't know.

September 7: Infodemia: the cancer of misinformation and fake news.

This Forum also had a large audience, the topic is now more current than ever, three of the four speakers were foreigners. Two of them were women experts in Cybersecurity.

The exhibitors brilliantly exposed the issue of Disinformation, organized manipulation in social networks, which had devastating effects in the past two years due to the COVID 19 pandemic. The traffic of false news and disinformation multiplied enormously, filling the mailboxes of email accounts, messages, and social networks.

Fake news and disinformation generally use techniques to create false information and then disseminate it en masse, being able to create the suspension of some accounts and content through the strategic use of information. They resort to unorthodox techniques such as trolling, doxxing, harassment, and amplifying the content of a fact with false information.

An infodemic was defined as the overabundance of information content, some misleading or false, many of which can be a risk for those who receive it.

Conclusions:

- The digital age provides a unique opportunity for freedom of expression. Social networks pose new challenges, there is international authority or institution to rate or manage the content. Anything that is written, whether it is true or not, is published and disseminated massively.

- Over the past two years, the spread of disinformation and misinformation online, as well as hate speech and micro-targeting, intimidation and harassment have multiplied.
- Social networks have become the main tool for slanderers.
- Once misinformation or fake news is published, there is nothing to do but prevent it, on the other hand, denying it is a daunting task, if not impossible.
- The spread of disinformation has several objectives; manipulate public opinion, discredit people, especially political opponents, or people who think differently, as well as silence the voice of all those who disagree.
- The main objectives of disinformation campaigns are these: to show support for something or someone; distract or divert attention (creating what is commonly known as a smokescreen); prevent participation through targeted harassment or personal attack; and finally, polarize public opinion.
- Fake News and misinformation find strength in sectors of the population with little education. They are shared quickly and en masse, knowing that very few people will correct them.
- Fake News and misinformation violate other rights such as privacy, human dignity, living in peace, a good name. They violate the right to be objectively informed; they are an excess to the exercise of free expression.
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- The main objectives of disinformation campaigns are these: to show support for something or someone; distract or divert attention (creating what is commonly known as a smokescreen); prevent participation through targeted harassment or personal attack; and finally, polarize public opinion.
- Fake News and misinformation find strength in sectors of the population with little education. They are shared quickly and en masse, knowing that very few people will correct them.
- Fake News and misinformation violate other rights such as privacy, human dignity, living in peace, a good name. They violate the right to be objectively informed; they are an excess to the exercise of free expression.

Recommendations:

- When receiving any material whose veracity is doubted, verify its origin, verify if it is true or not.
- Do not contribute spreading fake news of misinformation by sending chain messages received by any means, mobile terminal, or Email.
- Delete any suspicious email messages or mark them as "spam".
- Report any suspicious activity in your work environment.

- Open attachments only from email addresses you know, pay special attention to the source, it may be a variant of a legitimate account (missing a letter, or misspelled).
- Never share your login credentials with others who request them, no matter what reason you use to request them. Your credentials are private and personal.

• Be wary of emails that are sent to you and you don't know the recipient. If they have attachments, don't open them. It is better to delete the entire emails.

• Do not contribute to the spread of false news or messages with information that is suspected to be unreliable, or has been manipulated. If you doubt its veracity and you are interested in the subject, look for the origin of the message or investigate it in reliable sources.

• It has been proven that television news from the various channels have been deceived more than once. The fact that it comes from a famous news network does not guarantee impartiality, nor that everything is true.

Cybersecurity:

We had on Forum, but it was worth the value of many, because of the richness of knowledge shared by the exhibitors. This forum had a very large audience.

September 22: Cybersecurity.

As always, this forum, as expected, was one with the largest audience, it was conducted by Dr. Román Estuardo Cancinos, Vice Minister of the Fourth Vice Ministry of Technology of the Ministry of the Interior. In the conversation they announced that there is a national instance on Cybersecurity, the National Cybersecurity Commission, CONCIBE. There is a well-developed cybersecurity strategy, there are human resources with very good academic background and experience, they are Ronald Morales, from the Ministry of National Defense, Armando Monzón, from CONCIBE, Luis Felipe Figueroa from the SISAP Company, Fernando Martín del Campo from the IDS Company, and Mr. Giovanni Guzmán, an independent expert.

There is a CSIRT in operation with headquarters in the Ministry of Defense, it was established in 2009. In 2019 the Information and Technology Command was formed, with two main units, the Information and Communication Technologies Battalion that is dedicated to maintaining the infrastructure, maintenance of technological capabilities of the National Army; and the Cyber Defense Battalion, which, as its name indicates, is dedicated to supporting the critical infrastructure of the State of Guatemala. This CSIRT is recognized by the Organization of American States as one of the CSIRTs of America, it participates in International Forums through the OAS.

There is also a CERT in the Ministry of the Interior. There are private companies in the country that have their own CERTs, with which they provide their cyber incident prevention, training, and mitigation services.

Conclusions:

- Guatemala is not ready to face a cyberattack threat like the one that occurred in Costa Rica this year.
- Guatemala, since it does not have a cybersecurity framework law, runs a high risk of cyberattacks, and of being used to carry out cyberattacks on other countries.
- There is no leading institution in the country that is the reference in the face of the attacks that occur daily, nor are there any statistics at the national level.
- There is no vaccine, cure or shield that will protect us from cyber-attacks.

Recommendations:

- The first step to start protecting the country against cyber-attacks is the development of a National Plan, which includes a National Cybersecurity and Cyberdefense Plan.
- Work should be done to prepare a new draft Law against Cybercrime with the participation of the public, private, academic, and civil society sectors.
- For the preparation of the National Cybersecurity and Cyberdefense Plan, and the Cybercrime bill, it is recommended to establish a technical committee with the participation of society.
- A National CSIRT should be established that can be used as a reference, with the participation of stakeholders.

Educación

We had a stakehold from this sector, she planned three forums, but due to force majeure, only one was held, which turned out to be a very high-quality forum.

September 13: The reinvented teacher: learning to reinvent yourself.

As already mentioned, this was the only forum on Education that was held, the other two could not be carried out due to the unavailability of the speakers. For this case, Magdiel Oliva, who was in charge. Dr. Oliva informed that the main promoter of teacher transformation is UNESCO, the teacher is the agent of change in the classroom, inviting students to change, through learning; and adapt to the constant changes in society. There are many challenges in this area. In the country we have an educational infrastructure from the 19th century, teachers trained with knowledge from the 20th century, but with students from the 21st century. Changes cannot continue to wait, human resources are the most valuable, you must have a positive attitude and constant training. The education sector continues to use models that have not produced the desired results for a long time. It is time to change.

Conclusions:

- There is a virtuous triangle formed by attitude, capacity, and technological infrastructure. They support each other to obtain the desired results.
- The modern technological infrastructure is very valuable, since it is needed for the training of teachers and students. It is key to face the changes.
- Without this adequate infrastructure it is more difficult to face the new challenges that have appeared in recent years. It is essential in these times in terms of connectivity.
- For educational transformation to produce permanent change, it must be sustainable, based on educational policies.
- The transformation originates with the teacher, but educational and public policies are needed to support the changes that will bring a better education.
- The teacher must seek professionalization of it, consider digital literacy, learn to search and work with teacher networks, constantly innovate.
- Adopt the four pillars of the Knowledge Society promoted by UNESCO:
- Learning to know, Learning to do, Learning to live together, Learning to be.
- The teacher in our country must also look for innovative solutions in our environment and in other places, take advantage of the Internet to find them, and must learn to become a 21st century teacher.
- Changes in the Education Sector must originate in the Ministry of Education, and promote changes in the Curriculum and Assessment, in the application of digital skills, organization and administration.

Recommendations:

- The teacher must promote a climate of trust inside and outside the classroom, with students and parents. Parents should be involved.

- One way to promote learning in the classroom is through projects as a method to start the transformation process**.**

- Teachers must keep up to date every year, especially in new technologies. They must improve their capacity as a teacher.
- Digital Literacy is imperative in the teacher.
- Promote the exchange of experiences and knowledge between teachers, universities, and educational centers.
- All educational centers in the country must have the necessary infrastructure to optimize student learning. To support the technology they must have electricity.
- Educational centers in the interior of the country should seriously consider signing cooperation agreements with the COCODES or COMUDES, as well as with the Municipalities. In cases where there are civil organizations, also seek their cooperation.
- The Universities must be agents of change in the Educational Sector of the country. They must formulate teacher training curricula that allow the use of technology as a support tool.
- The Ministry of Education must develop new educational programs at all levels, and include a new focus on science, technology, engineering, mathematics, and art in the basic national curriculum; as is already being done in other countries.
- Include parents in support of a new curricular project.

Digital Transformation

The idea of having Digital Transformation theme for this year, came from last year´s forum we had with Ms. Irina Cisneros.

September 14: Implementing ación de la transformación digital en Centroamérica

For this forum we were lucky to have the participation of Ms. Irina Cisneros, Director of Regulation of Digicel El Salvador. Digital transformation is defined in this way: Digital

transformation integrates technology into a business or institution, changing the way it works, offering value to customers or users.

Although it is true that the digital transformation began more than five years ago, the social isolation caused by the Covid-19 Pandemic has caused companies to adopt digital strategies and solutions to survive at an accelerated pace. The changes help the company to increase sales, improve relationships with its customers, save money by optimizing the operation of the company, and in most cases to attract new and retain employees.

In the case of government institutions, they also experience positive changes, their operations are optimized, the way they work, their processes become more efficient, they are more productive.

During the Pandemic, in the years 2021 and part of 2022, the exhibitor did a study of her clients, finding that they had these five technological capacities, and their percentages:
35% had the ability to work at home; 22% had advanced Cybersecurity; 18% Advanced Analytics; 19% of them have advanced cloud infrastructure; and 14% have Mobile Technology.

Conclusions:

These are five aspects to consider in the digital transformation of companies.
- The business environment, an analysis of the market and the competition must be made;
- Business requirements, rank and prioritize to help achieve your goals;
- The culture of the company, since everyone in the company must agree to the change;
- Experiences with the clientele, since it is through the clients that they become involved in the digital transformation of the company.
- Technology, we must increase the digital services offered to the client, improve their digital presence on the Internet.
- Businesses that could not adapt to the change in the market caused by COVID-19 did not survive and had to close.
These are the stages of digital transformation.
- Consideration of training;

- Development of a strategy;
- Have leadership capacity;
- Consider change management
  - Companies that lag behind in their digital transformation may experience one or more of these consequences:
  - They lose their position and relevance in the market.
  - Difficulty in attracting and retaining talent;
  - They lose the opportunity to maximize their profit margins;
  - They sacrifice efficiency to be competitive;
  - They lose opportunity to have new sales;
  - The company loses value.

Recommendations:

• These are aspects to overcome in your business or institution to be successful in the implementation of digital transformation:
o Insufficient technical knowledge;
o Budget priority;
o Lack of technological infrastructure;
o Lack of a solid digital transformation strategy;
o Concern for Safety.
• These are regulatory changes of the transformation that the States should adopt, and that will occur in the market because of the changes that have been taking place during this time:
o Massive use of the electronic signature;
o Cybercrime Law;
o Electronic and digital notifications;
o Data Protection;
o Upturn in Fintech and Electronic Commerce.
• Digital transformation requires an integrated business strategy, changes that must occur in an orderly manner to keep existing customers and reach new ones, opening up a market.

September 22: Digital Transformation, regulations from other countries.

This was the last forum, prior to the closing of this year's cycle of Discussions and Consultations. We were lucky to have highly prestigious international experts in this activity.
Something that the exhibitors made clear is that Digital Transformation is not something that happens spontaneously, work must be done to identify the areas to be transformed,

Conclusions:

There is already at least one National Plan for the Digital Transformation of a country, it is the ITU Plan, which was presented by the ITU Representative for the Region.
• The ITU Digital Transformation Plan is applicable to Guatemala, it contains a methodology that can be adopted.
• Remind government authorities that they have made a commitment to update and modernize the current regulatory framework, and not change what has worked well up to now.
• A country's digital transformation plan has a multisector approach, including regulations, mandates, budgets, initiatives from various government institutions and various sectors to ensure that there will be a long-term sustainable Plan.
• It is possible to obtain funds for the implementation of a Transformation Plan.

Recommendations:

• The Government of Guatemala, the Telecommunications Sector, the Academy, and Guatemalan society should establish a technical committee or similar body with a multi-stakeholder approach; to prepare a list of the changes to be carried out to modernize the Telecommunications sector, and achieve the goals that this year were committed for their implementation before the year 2025.
• Study whether the ITU Plan for the implementation of the Digital Transformation can be adopted in Guatemala.
• Request the accompaniment of ITU to help the Government of Guatemala to achieve the goals that were committed to in 2022.
• The coverage of the Internet service in the country should be expanded to give government institutions the opportunity to participate in the Digital Transformation of the Country.
• Form a multi-stake holder committee to develop and implement a National Digital Transformation Plan, which must be included in the National Plan.

- Encourage national investment, competition at all levels, create incentives to have more participants and thus contribute to the digital transformation of the country.
- The ITU can give an orientation of which are the institutions that can be approached for the financing of the Plan. Also to get consultants.

Blockchain:

The organizers of the forums were Estuardo Sandoval and Kimberly Barrera, from our academic partner Universidad del Istmo. They had selected two topics, "The Relevance of USDC as a Blockchain-Based Reference Currency", and "The Legal and Technical Feasibility of Implementing Blockchain-Based Public Contracts. Roadmap". Unfortunately, these could not be carried out due to commitments of the exhibitors that it was no longer possible to change. In addition, because it was one of the last talks to be held, there was no time to find other speakers, or to move the dates so that they could be held before the closing of the IGF. These and other proposals of this thematic line will remain for the future.

Closing the 2022 IGF:

The closing event of the VI annual Forum was held on September 29 at 6:00 p.m. in one of the auditoriums of the TEC Campus in zone 4 in Guatemala City. It was a hybrid event, with the presence of special guests, who were the speakers of the Forums that took place, and members of the IGF Organizing Committee this year. The special guest to close the event was Roberto Zambrana, member of the Advisory Group of experts, MAG, of the IGF of the United Nations.

The Kick-Off was our first activity, a great event at the Universidad del Istmo. We began to meet bimonthly as of March of this year, but it was in June that speed picked up and actions were materialized. Our strategic partners, stakeholders, represent the government, private productive, academic, civil society, technical, and educational sectors of the country.

The forums began on August 5, one day after the Kick-Off, with the topic Economic, Social and Technological Situation of Guatemala, from the Public Policies. More forums followed, one on August 18, and then two each week, until the Closing, for a total of twelve forums in six weeks. This year we had two face-to-face activities, the Kick-Off and the closing.

The forums with the largest audience were from Education and Cybersecurity. We had five forums from Public Policies, three on Net Neutrality, and two on our main theme, Digital Transformation. We must also add the great presentations by the special guests of the opening and closing ceremonies.

We also had the support of experts from Brazil, Colombia, El Salvador, Guatemala, Peru, Panama, Paraguay, and the Dominican Republic. We produced over 18 hours of top quality thematic content, from our twelve forums, the Kick-Off and closing ceremonies. Thirty-one speakers and four moderators contributed their knowledge and experience to our successful forums, in which new knowledge was transferred and acquired. Eight speakers were women, all of them experts in the topics they presented, this year, again, we had a conversation in which the four speakers were all brilliant women.

General conclusions:

We present below the general conclusions and recommendations of this year's Forum, compiled during the discussions.

• Once again, the lack of a legal framework in the country on issues related to the Internet for the protection of the privacy of Guatemalan users.
• The population is concerned about the lack of protection for their data, their information.
• They also showed their concern about the lack of a government policy and programs for the protection of children and adolescents on the Internet.
• Grooming, Sexting, Cyberbullying and Inappropriate Content are the problems that most affect vulnerable people.
• The importance of collaboration, transparency and participation in the open government ecosystem.

• Children and teenagers are exposed to many dangers, especially being deceived by malicious people, criminals who pretend to be young people or children to encourage them to take photos naked and sell them later as part of their child pornography business.

• The participation of all sectors in the Forum allowed a greater scope, diversity of opinions and approaches on all issues. As well as it allowed to know better the situation of each one of the subjects.

• The teacher must seek professionalization, consider digital literacy, learn to search and work with teacher networks, always innovating.

• The transformation originates with the teacher, but educational and public policies are needed to support the changes that will bring a better education.

• There is no exact data on the penetration and coverage of the Internet service in Guatemala, nor on the coverage of the Broadband Internet service.

• There is a need for a clearer policy and actions for the issue of education and technology in Guatemala.

• There is a favorable environment for Information and Communication Technology issues in our country, especially for outsourcing issues, although great challenges persist in terms of Regulation, Infrastructure and Training.

• Part of the National Broadband Plan is being worked on, especially the 5G issue.

• Community networks can become a real alternative to reduce the digital gap if you can have several projects in any given period of time.

Recommendations

- Continue developing and disseminating Internet Governance concepts to all sectors in the country.

- Involve more sectors of the country, motivate more institutions to participate in the activities of the IGF of Guatemala, to make their opinions and points of view known, to face their needs, and to seek points of convergence with other institutions.

- Make alliances, sign cooperation agreements and memoranda of understanding with public, private and academic institutions to contribute to the solutions of the national problems that have been made known in the IGFs of Guatemala since 2017.

- Create a Working Group on Public Policies in the Guatemala Chapter of ISOC with the objective of giving continuity to the theme throughout the year and not only during the cycle of the National IGF.

- Schedule several meetings to get feedback of the proposed Cybersecurity law initiative in Guatemala: http://lexglobal.com/documentos/1494287349.pdf

- The Superintendence of Telecommunications, the Ministries of Economy, and Communications should develop a strategy to promote the entry of more players into the Internet provider market.

- It is necessary to have a clear policy and actions to have an affordable and quality Internet Service in the entire country, to expand the current coverage to other places.
- Once again, in this forum, all issues related to the Privacy of Internet users' Information were mentioned as a priority.
- It is necessary to have a committee or Technical Board with broad participation of stakeholders, to develop the National Cyber Security Strategy, and the Cybercrime Law.
- To follow-up and accompaniment of the issues mentioned in all the Public Policies forums of this IGF.
- The use of an electronic forum tool to continue publicizing the topics of greatest interest to Internet users in the country, to make them aware of the importance that should be given to each one of them.
- To improve the safety of children and teenagers, emphasize the aspects of personal security that must prevail in all interactions on the Internet.
- It is necessary to have periodic data on the penetration of Internet service and Broadband service in the country, it is expected that this will help the development, among others, of applications that facilitate procedures for the population and the development of local content.
- Connectivity Public Policies must be implemented as soon as possible, establishing themselves as the highest priority, to promote the comprehensive development of the entire population, starting with the Education Sector.
- The changes in the Educational Transformation not only depend on the teachers and administrators, the Presidency and their Ministries must be totally convinced that these changes are necessary, to have a better country in the future.
- Projects for the establishment of community networks throughout the country should be promoted, especially in communities farthest from the departmental capitals.
- The short-term implementation of Digital Community Networks throughout the country is a priority.
- The development of digital content should be promoted, especially about our culture, languages, traditions, legends, bilingual education.
- Support virtual education initiatives in the country to improve the educational quality of students, especially in the interior of the country.
- It is recommended that the National Broadband Plan be prepared taking into account the opinions of all stakeholders, and not only the opinion of the government.
- The National Broadband Plan and the Digital Agenda of Guatemala must have measurable and verifiable objectives, a timeline to assess whether the objectives are being met on time, as well as a developing a "Roadmap".
- The Universities that offer a career in Educations are recommended to reformulate the approach with which they prepare the country's future teachers, emphasizing the use of technological tools.

Results of advertising in digital media

The objectives of hiring specialized people in advertising in digital media was to improve the image of the IGF, the Local Chapter, and to achieve greater penetration in the target audience, which was young people between 25 and 44 years old, of both sexes.

Initially Luisa María Morales Quintana was helping us, but later it was decided to hire two people for the design of the digital material, and for the management and publication of the materials produced to promote the forums and the Closing event in three social media: Twitter, FaceBook and Instagram. Some of the results are below.
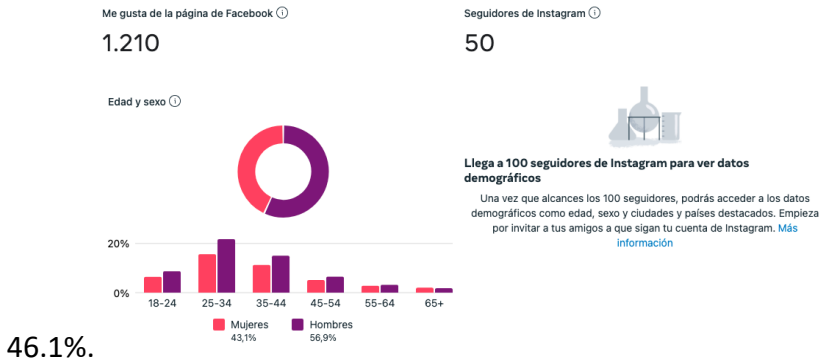

Below, results for Facebook and Instagram, the networks with largest penetration.

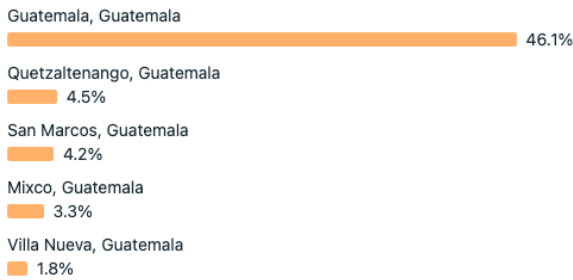En cuanto a las visitas, también Facebook reportó más visitas.

The target audience of our group is made up of 57% men between the ages of 25 and 44. Half of the followers come from Guatemala City and Mixco, together they make up 46.1% of the total audience.

Me gusta de la página de Facebook ⓘ

1.210

Seguidores de Instagram ⓘ

50

Edad y sexo ⓘ

Llega a 100 seguidores de Instagram para ver datos demográficos

Una vez que alcances los 100 seguidores, podrás acceder a los datos demográficos como edad, sexo y ciudades y países destacados. Empieza por invitar a tus amigos a que sigan tu cuenta de Instagram. Más información

Mujeres 43,1%   Hombres 56,9%

46.1%.

Principales ciudades

Guatemala, Guatemala — 46.1%

Quetzaltenango, Guatemala — 4.5%

San Marcos, Guatemala — 4.2%

Mixco, Guatemala — 3.3%

Villa Nueva, Guatemala — 1.8%

Below, the two forums with more audience, and with more interactions.

Mayor alcance de una publicación ⓘ

Publicación de Facebook

La forma de impartir clases cambió con la pandemia. Lo...

8 sep 2022 10:52

Esta publicación llegó a un **1.131%** más de personas (1.317 personas) que tu mediana de publicaciones (107 personas) en Facebook.
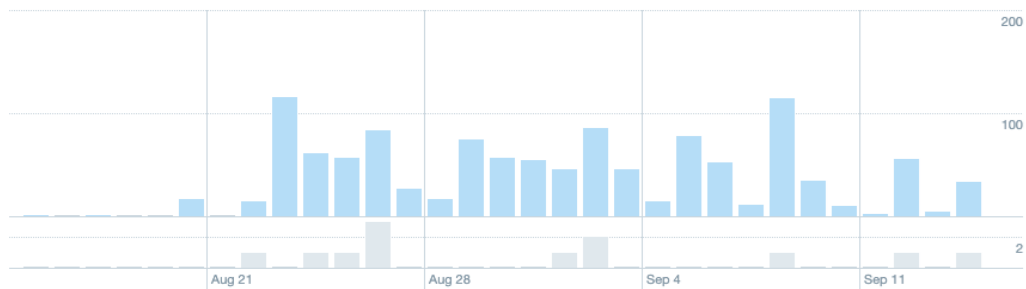
Mayor número de reacciones de una publicación ⓘ

Publicación de Facebook

Arranca el #IGFGuatemala 2022 con el tema del bloque...

22 ago 2022 16:29

Esta publicación recibió un **320%** más de reacciones (21 reacciones) que tu mediana de publicaciones (5 reacciones) en Facebook.

We also posted in Twitter, results are below.

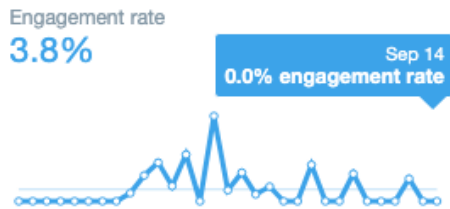Your Tweets earned **1.1K impressions** over this **31 day** period

This means that during the 31 days of the IGF, we had 1,100 "impression", with an average of 100 impressions with 11 Tweets each (above).

Below is the audience interaction, showing almost 4 interactions (like, re-tweet, reply).

The two tweets with the greatest number of "impressions" were the forums on September 7, Infodemia, with 191; The next most popular was the discussion on August 31, Protection of vulnerable people, with 159 "impressions" and 28 interactions. Both conversations are from the Net Neutrality Thematic Axis.

Overall, Twitter had more than 23,000 "impressions" during the 31-day period, 40 clicks per link.

It is recommended to continue promoting our activities in the social networks.

People and organizations

We deeply appreciate the people that supported us from the begining of the year, without them, we could not have an IGF:

Fred Clark, Álvaro Gálvez José Raúl Solares	Capítulo Guatemala de la Internet Society
María Mercedes Zaghi	Comercializadora del Campus TEC zona 4
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Miguel Ángel Alcaine	Sede Regional de UIT para Centroamérica
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Mariel Aranda	CiberSecurity Paraguay
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Óscar Acevedo	Cyberseg de Guatemala

Acknowledgement

To all the people that helped us to make our Sixth IGF a reality. Thank you.