

Barbados IGF 2017

FINAL REPORT

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EXECUTIVE SUMMARY

Overview

The inaugural Barbados Internet Governance Forum was officially launched with a cocktail reception on June 21st, 2017 at the Errol Barrow Centre for Creative Imagination, University of the West Indies. Two outstanding stalwarts received awards for their contributions to the Internet and Internet Governance; Mrs. Bernadette Lewis Secretary-General of the CTU and Mr. Alan Emtage creator of the first search engine and a founding member of the Internet Society.

A two day forum followed on June 22nd and 23rd 2017 at the Cave Hill School of Business, University of the West Indies. This event brought together various stakeholders from Barbados along with specially invited regional and international guests to discuss legal, technical, social, political and economic issues related to the internet and its usage. The discussion centered around challenges faced in utilizing the internet to its full capacity, opportunities presented by the use of the internet and the way forward.

The forum hosted more than 60 participants on both days as well as robust online participation with more than 3,000 unique views of the livestream. In keeping with the multi-stakeholder model, participants included ICT professionals, lawyers, law enforcement personnel, government officials, civil society practitioners and those from academia. The event included panel discussions, workshops and exercises with presentations by subject matter experts on internet governance and related matters.

Day 1 of the IGF focused on legal aspects related to the Internet, the internet governance ecosystem, increasing participation in internet governance, the laws relating to the internet in Barbados, and how legislation gaps are harming business in Barbados. Day 2 focused on presentations on cyber security, cybercrime, the internet economy and the issue of how the internet has assisted in activism. The day's proceedings concluded with an open forum where participants were able to share relevant questions, comments or topics of their choosing.

The Internet Governance Ecosystem



The internet can be described as an ecosystem composed of several actors carrying out specific functions related to internet governance. The internet ecosystem can be defined as an interdependent network of both living and non-living elements all integrated and working together to ensure that the Internet is functioning properly. The internet's importance is hinged on the quality of life it provides for its users. Although this resource has significant benefits for all Barbadian citizens not everyone is aware of the potential benefits. There is therefore a need to build greater awareness about the internet. Individuals are undoubtedly the most important element of the internet as they help to shape the internet. It was suggested that persons engage directly their Regional Internet Registries (RIRs) and not rely on telecommunications companies that may be serving their own business interests. The importance of a targeted approach for specific groups was mentioned.

Increasing Participation- Fellowships, Ambassadorships and Opportunity



There is a shared concern that not enough Barbadians and Caribbean citizens are taking up the opportunities provided by internet governance organisations such as LACNIC, ISOC, ARIN and ICANN. Participants of the two-day forum received an overview of the work of these organisations and their role in internet governance as well as information on several of the opportunities which exists for ordinary persons to become involved in the work of such organisations. While it is acknowledged that fora held by such organisations is filled with considerable technical jargon, panelists sought to allay concerns that participation could only be done by technical experts. Several suggestions were made to deal with the challenge of understanding the jargon. These suggestions included online participation in committees to work on policy issues, remotely participating in various fora held by these organisations and becoming involved in internet governance activities at the local and regional level.

Personal Cyber Security

The lunch-and-learn session was another awareness building session focused on cyber security. The presenter sought to bring awareness about the weaknesses that exist in security when one uses the internet. The presenter highlighted the mechanisms hackers use to penetrate not only businesses but personal computer systems. He pointed out that individuals are a weak point for any organization as information gathered through social engineering can be used to hack an organisation's system. There are various threats that exist such as malware, spyware, ransomware and identity theft. Likewise, there are several consequences of inaction such as loss of information and loss of confidentiality. The good news is that there are a lot of mechanisms and software available to a company to defend themselves against such threats. However, educating employees is the first and most important defense when dealing with cyber security.

Internet Law in Barbados

There is a need for clarity as it relates to legal issues surrounding internet usage in Barbados. This need for clarity and sensitization emerged during a session to garner how well participants knew the law, specifically the Computer Misuse Act. The activity revealed that not all the issues relating the use of the internet are covered specifically in the piece of legislation; however, there are other pieces of legislation that cover other offences

related to the internet and its usage. Additionally, forum participants disagreed on penalties within the legislation some believed such were inadequate particularly in cases where there was reputational damage.

Following the exercise on legal issues surrounding the Internet forum participants heard the expert opinion from the Director of Public Prosecutions who focused on the Internet law in Barbados. Several pieces of legislation exist in Barbados which can be used to prosecute criminal acts committed via the Internet. These pieces of legislation include:

- The Computer Misuse Act
- The Electronic Transactions Act
- Copyright Act
- The Telecommunications Act
- The Corporate Act
- The draft Data Privacy and Protection Bill



Persons who are unsatisfied with the provisions of the Computer Misuse Act have a mechanism where they can have their issues heard. Such persons can write to the Attorney General of Barbados highlighting any deficiencies which they identify. Participants raised concerns about the ineffectiveness of the legal system noting that it appeared as though only a small number of persons were being charged with cybercrimes. However, it was explained that the major reason for the low prosecution of cybercrime matters was the lack of complaints brought to law enforcement officials. Even in cases where complaints are made, there are challenges in identifying the perpetrators and with complainants' reluctance to testify. It is therefore easier to prosecute some cases compared to others for example revenge pornography versus child pornography. In the case of child pornography, the child would not need to testify as this is considered a crime against the state.

Are Legislation Gaps Harming Business



The impact of legislation and legislative gaps on businesses which utilise the Internet was a major point of concern during the forum. Legislation is often created due to a societal problem identified or as a result of a

legal gap. The general public has a role to play in relation to the laws which are formulated and what new areas might need to be addressed with the creation of new legislation. The forum highlighted that the public has often left it up to public officials to create new legislation and there needs to be a stronger sense of public advocacy and lobbying.

In order to get legislation drafted and enacted, interested parties need to convince the powers that be that there is need for the legislation. A lack of appropriate legislation has hindered some Barbadian internet based companies in their business operations. These companies have been disadvantaged where no legislation currently exists which provides a regulatory framework and structure for those companies to effectively operate. This has created difficulty with some companies resorting to following the prescriptions of legal frameworks in other jurisdictions with the possibility of being closed at any moment as well as spending significant sums of money in getting legal opinions.

Along with the gaps that exist in relation to internet based companies there are also gaps as it relates to privacy and data protection of ordinary citizens. Participants raised concerns about the level of confidence Barbadians have in using online shopping sites based in the Caribbean compared to international sites. Barbadians and Caribbean citizens have more confidence in using their credit cards to shop online with international sites such as Amazon but do not have the same confidence to shop online with Caribbean sites. However, differing perspectives emerged where it was argued that the same mechanisms used by international sites to protect customer data are also used by merchants in Barbados and the Caribbean.

The Internet and its use especially for business purposes in Barbados is about survival for the country and the economy, for this reason the pace of legislative reforms was seen as too slow. Panelists and forum participants alike felt that Barbados needed to improve in this area otherwise it would be surpassed by other developing countries. One solution is to lobby at the level of CARICOM to get the legislation that companies need to operate effectively, however it is believed that even at such a level the build out was too slow. Barbadian companies are committed to agitating for changes in the legislation in Barbados.

Cybercrime in Barbados



Cybercrime is seen as a major issue which has not been seriously addressed by Barbadian citizens, government officials and the private sector. The topic of cybercrime raised several concerns including the need for improved legislation, the lack of a governance structure by companies in Barbados and the Caribbean to deal with issues related to cybersecurity and cybercrime and the importance of forensics in cybercrime. The lack of reporting and information sharing was also highlighted as a major issue. At the end of the session there was a call for mandatory reporting, and awareness building not only for companies but for individuals as well on the importance of cyber security.

Cyber Security in the Region

Issues of cyber-security are not just problematic for Barbados, stakeholders from across the Caribbean also face similar issues. A virtual town hall discussion was held on cyber security which provided a regional perspective on the matter. The participants included cyber security professionals from Barbados, Trinidad, the Dominican Republic and Haiti.

The discussion focused on the cyber security threats in the region resolving these issues by utilizing the various players involved in the Internet and internet governance. It was revealed that the Caribbean was not so different from the developed world, having a high level of internet penetration in several countries. Like the developed world, the Caribbean was seeing the same kind of cyber security threats such as ransomware and phishing. The difference is that within the Caribbean there are not enough legal provisions in place for governments to manage such challenges.

The panelists agreed that despite the positive aspects of the internet and its use countries needed to protect themselves from the negative aspects as well. The need for increased awareness campaigns for citizens was again highlighted, as it was felt that citizens were not aware of the threats that they were exposed to in the global internet environment. The Caribbean has been fortunate to have a variety of stakeholders involved in internet governance; it has also been fortunate to have a number of donor agencies that have come onboard to assist in strengthening the region's response to cyber security challenges. The actors involved included development agencies such as the OAS, the UN and other entities such as the EU who have lent support to Caribbean governments.

The Internet and Activism: Democracy & Economics



The Internet has provided a platform for ordinary citizens to voice their concerns, educate themselves and empower other citizens. For this reason, the forum highlighted the internet as a positive medium for activism as well as challenges faced in using it as such. Panelists indicated that they saw the internet as a way to educate ordinary individuals on complex topics such as economics and fiscal matters. The response of the general public

to such initiatives has been tremendous and citizens have also had the opportunity to ask questions and seek clarification on matters they do not understand.

While anecdotal evidence suggests that many Barbadians are using the internet for entertainment purposes. Some panelists indicated they were very weary of the platform that the internet was providing. While some used it for positive purposes many persons were also misusing it. The Internet was therefore seen as a potential soapbox for any and every one and that was not what was necessarily needed or desired at this juncture in Barbadian democracy. There is a disconnect between young people and the use of social media and the internet to effect positive change.

There were diverging views on the use of the internet for activism as some panelists believed that simply highlighting the issues, though necessary, was not enough. It was suggested that activists needed to move beyond pointing out the issues to knowing and articulating the change that needed to occur as a result of the activism and a clear strategy on how this could be achieved. Others felt that it was enough to educate persons in order to bring about change. Internet activism is important but particular attention should also be paid to the strategy and reaching the intended audience.

The Internet and Activism: Gender and Harassment

The internet serves as both a platform to denounce gender inequality and sexual harassment and tool for persons to be perpetrators of online abuse, particularly of women. The online harassment of women has become more prevalent with the spread of the Internet. Panelists agreed that women are harassed differently from men and are usually the victims of online abuse.

The issue of gender-based harassment is problematic in Barbados and the Internet mirrors what is occurring in the offline world.

The rules that govern interaction online are not as rigid as those that govern face-to-face interaction and this makes it difficult to combat issues such as sexual harassment. The anonymity of Internet communications creates an environment where persons feel empowered to behave in ways that they would not in the offline space.

An online platform can provide space that a particular group is not afforded in the physical world and can encourage persons to speak out negative experiences they have had. The internet has also allowed activism to spread to other countries in a hastier manner. People use the internet as a tool for meeting their psychological needs and the emotional fall out of using the internet must be considered. A point about young people's exposure to music on the internet led to a discussion around whether music influences culture or music is a reflection of culture. It was agreed that the issues on online gender inequality and harassment were a reflection of the same occurring in the offline space.



Supporting the Internet Economy

Barbados has made significant progress in integrating the Internet as part of its economy and the island has significant internet infrastructural investment. However, a lack of awareness of the economic potential of the Internet, as well as the need for legislative reform, are a barrier to maximizing the internet economy.

The Barbadian government itself has come a long way in terms of its ICTs uptake. The first e-government strategy was implemented in 2006. The first strategy was inward looking as the government sought to address internal challenges. The new e-government strategy is citizen-centric and looks to build awareness. However, one major challenge within government is that the responsibility for ICTs is scattered across several government departments.

There are personnel and infrastructural challenges in developing an internet economy but the human element is often overlooked in Barbados. Internet technologies can be used to improve the competitiveness of the private sector and institutions like the University of the West Indies. Citizens can also benefit from increased availability of online products, particularly government services. Sectors ripe for the experimentation and adaptation of technology include the cultural industries and the educational sector.

Open Forum



There was consensus that the multi-stakeholder approach is the way to go for Barbados if it is to see progress in resolving Internet issues and acting on the recommendations emerging from its first IGF. The experience of Trinidad can assist Barbados in strengthening its own multi-stakeholder process and advancing its ICT agenda.

Greater public education campaigns, awareness sessions, legislative reform and regulation are important as part of the way forward. Several participants suggested the formation of an e-council, representative of all stakeholder groups that would be responsible for charting the path for ICT development in Barbados and ensuring that progress is made.

The work of the Internet Society Barbados Chapter is important and there needs to a focus on growing membership outside of ICT professionals to include students such as those at the University of the West Indies and other stakeholders. Barbados needs to foster an environment where young people are encouraged to explore the economic potential of ICTs through app creation and exploring investments for their projects.



Forum Highlights

The forum saw a few reoccurring themes that stood out over the two day meeting. These included:

- A need for new and revised Internet legislation in Barbados
- A need for greater awareness about the Internet and internet governance for all Barbadians
- A need for robust ICT strategy on a national level
- A multi-stakeholder approach to internet governance
- Greater outreach by ISOC BB and similar organisations
- Increased education about cyber-security and cybercrime

Recommendations and Next Steps

Education and Awareness Building Programme

1. Internet Society Barbados Chapter, the Telecommunications Unit and the University of the West Indies to work with the Ministry of Education, Science Technology and Innovation to review the ICT curriculum in secondary schools with a view to including topics specifically related to the internet's technical architecture.

This can be done utilizing the resources of organisations such as LACNIC/ARIN, CTU, ISOC and ICANN. Online sessions should be established to allow students to interact with internet experts from these organisations periodically.

The objective is to promote, at an early age, a better understanding of how the internet works, the various stakeholders involved, and the opportunities for Barbados to shape global policy on future internet growth and development.

2. ISOCBB to work with a video production company to develop a video series, building on BIGF2017 video footage and other promotional materials, that highlight the critical issues surrounding the internet from a local perspective.

The series should follow the topics explored at BIGF2017, utilizing a local public personality, in an engaging manner, to explain the issues in simple terms. The series should be 8-10 episodes and released online over a 6 months period and shown during prime time on local TV. This should be done with the support of private sector sponsorship. The series should also be promoted radio and on social media.

Increasing Participation

3. Opportunities for participation in global fora to be circulated more widely to the general public and within the public service via GIS public service announcements, and through email blasts by the Data Processing Department (DPD). They should also be circulated with the assistance of and via the social media sites of GIS, ISOC BB, BIPA, UWI, ISSA.

These opportunities include fellowships being offered by organisations such as ICANN, ISOC, etc. and opportunities to participate in locally organised remote hubs for global meetings & events.

4. Ministry of Foreign Affairs and Foreign Trade to identify a Senior Foreign Service Officer, or specific unit within the Ministry that has overall responsibility for diplomacy and the internet. Overseas missions

should also be engaged more directly to keep track of critical issues related to global internet policy development.

Specific missions to be engaged include Permanent Mission to the UN (New York), Permanent Mission to the UN (Geneva) and Permanent Mission to the OAS. These missions cover relevant issues such as cyber security, international telecommunications, ICT for development etc. Reports and position papers should be shared with local stakeholders wherever possible.

Cyber Security

5. A Task Force to be established to advanced cyber security policy nationally and enhance Barbados' capacity to respond to cyber threats. Members to include Data Processing Department, Royal Barbados Police Force, Telecom Unit, Ministry of Defence and Security, Barbados Defence Force, Information Systems Security Association Barbados Chapter, Internet Society Barbados Chapter and Barbados IT Professional Association.

The Task Force should have responsibility for The National Computer Security Incident Response Team, which currently resides within the Telecom Unit. This would provide the CSIRT with the requisite resources to function effectively and the involvement of cyber security professionals from both private and public sector would increase trust. The CSIRT should be the national focal point for cyber issues and support other CSIRTs such as Government, financial services, telecommunications, etc.

Internet Law

6. A review of existing legislation and regulations related to the internet and digital services should be undertaken to determine where major legislative weaknesses exist. The team conducting the review should include representatives from Chief Parliamentary Counsel, the University of the West Indies, Telecom Unit and civil society. A multistakeholder approach should be used.

This review should include recommendations made in the past by the ITU (HIPCAR), the OAS (CICTE) and the Commonwealth Secretariat. Consideration should also be given to the adoption of the Budapest Convention by Barbados.

The review should be undertaken with a view to updating these regulations in a new converged technological environment. Issues such as blockchain technologies, digital currencies, over the top (OTT) services, internet of things (IOTs), quality of service (QoS) to be included. Assistance can be sought from the International Telecommunications Union in this regard.

7. Consideration should be given to establishing a mechanism to facilitate a regulatory sandbox. These are a set of rules that allow innovators to test their products/business models in live environment without following some or all legal requirements, subject to predefined restrictions. This would foster the development of innovative products and services for which legislation does not yet exist.

Internet Activism

8. Consideration should be given to the establishment of a multi-stakeholder advisory group (MAG), made up of existing internet stakeholders, to advise on IG policy development. This would ensure that no one organisation has ownership of public policy discussion about the Internet.

Digital Economy

9. Responsibility for ICT policy development and implementation to be rationalized across the public sector so as to eliminate silos and duplication of effort. This would involve a review of departments such as Data Processing, e-Government Development, National Council on Science and Technology and the Telecom Unit.
10. Barbados should identify and establish strategic partnerships with countries that have implemented successful national digital strategies. This can be done through a technical cooperation agreement negotiated by the Ministry of Foreign Affairs and Foreign Trade. The agreement would focus on building capacity at the level of senior policy makers and advisors to enhance Barbados' ability to benefit from new digital opportunities.

Barbados Internet Governance Forum

11. The Barbados Internet Governance Forum should be given a 3 year mandate with a view to conducting an assessment of its effectiveness in advancing internet policy development after this period. The existing model for funding and organizing the event should remain in place.
12. A framework should be established to monitor recommendations arising from Barbados IGF. This would include national advocacy related to issues raised at the forum, overseeing the implementation of recommendations from the forum and facilitating ongoing discussion and collaboration amongst the various stakeholder groups.

Next Steps

1. This report will be circulated for public comments for a period of 2 weeks.
2. Comments will be factored into the report before submission to policy makers within the Government of Barbados.
3. The final report will inform the BIGF Organising Committee with regards to the agenda for BIGF 2018.
4. The final report will also assist in the development of policy positions taken forward into the Caribbean and Global IG fora. It is hoped that these issues can be articulated as areas of interest to Barbados.

DETAILED REPORT

DAY 1

Introduction and Objectives

Mr. Rodney Taylor – Chairperson, Internet Society Barbados Chapter

In his opening remarks, which sought to provide a brief introduction and list the objectives for the forum, Mr. Rodney Taylor stated that the IGF is a global initiative of the United Nations that is growing in importance. He went on to say that it is important to know how the policies governing the Internet are developed and how stakeholders can get involved. He said that the IGF is meant to foster open and frank discussion on the Internet and Internet related issues. In welcoming the participants and the online audience, Mr. Taylor alluded to the compilation of a comprehensive report as one of the key outputs of the forum. The recommendations included in this report will be submitted to key policymakers with the hope of strengthening ICT policies and initiatives.

Internet Society Address

Ms. Kathryn Brown – Chief Executive Officer, The Internet Society

In his introduction of Ms. Kathy Brown, the regional representative for the Internet Society Shernon Osepa said that the internet society is a global organization that focuses on three main areas:

1. Internet standards development through the Internet Engineering Task Force (IETF)
2. Policy development through collaboration with governments around the globe focusing on both the technical and social aspects of the internet
3. Capacity building and education; with a focus on identifying local people to work on local issues as opposed to depending on others in the North America for assistance.

In thanking ISOC BB for the invitation and congratulating the chapter on organizing the event at only nine months old, Ms. Brown recognized the work of the organization in such a short space of time. The year 2017 will mark the Internet Society's 25th year of advocacy for an open, secure and trusted internet that benefits everyone everywhere. The organization was started by a group of pioneers that felt that a society would emerge from the idea that is the internet and they were correct.

The internet is part of our social fabric and is central to how we connect, communicate, create and collaborate. There will be a launch of a comprehensive report later in the year as part of the 25th anniversary which looks at the key forces that could impact the future of the internet. A wide range of internet society members and partners were engaged in the creation of the report. There are deep concerns about the future of the internet which has led to calls to build borders, build walls and even to put the internet under tight government control. This fear is not globally held as many persons including the Internet Society see great hope for the future of the internet society.

Many persons are now coming online and many see the internet as the backbone of the world's economy and are excited about the vast opportunities the internet holds for them. Internet adoption in the Caribbean continues to increase and varies from 12 % in Haiti to over 80% in Barbados. This is progress but it is uneven. There is much work ahead to connect the unconnected and this is the primary focus of the Internet Society. The society encourages new strategies to achieve this, innovative ideas that empower local communities and individuals to develop sustainable connectivity initiatives. She encouraged the Barbados Chapter to help them identify local opportunities. Having access is not enough, ISOC wants to see equal opportunities for everyone to participate in and benefit from the internet.

The internet can be a tool to improve efficiencies, drive innovation and develop a local economy. However, differences in connection technology, quality, level of internet openness and access to local content lead to very different internet experiences for users. Another pressing issue is trust, and it is ISOC's goal to improve trust in the Internet in order ensure that people are able to achieve the social and economic development that everyone wants. There needs to be a collaborative responsibility of all stakeholders including governments, policy makers, academia, technical community, and users.

There are a number of important topics participants may want to discuss at the forum including:

- Telecommunications and internet infrastructure
- Economic aspects of the Internet and how an internet economy can be developed
- Socio cultural issues that are prevalent in the online world
- Development opportunities
- Mechanisms to bring relevant stakeholders to the table

Human rights and cyber security issues are also key areas and are some of the most discussed topics across multiple regions. The work at the forum is very important as it is a place to discuss local challenges and to develop solutions. The forum is also a place to find local champions and drive action.

Regional Perspective on Internet Governance

Bernadette Lewis – Secretary General, Caribbean Telecommunications Union

Ms. Bernadette Lewis started her presentation by giving a historical background of the Caribbean Telecommunications Union, noting that the unit was started in 1989 by CARICOM heads to be the inter-governmental telecommunications policy instrument for the Caribbean.

In 2003 a different mode of operations was developed which included information and telecommunications technologies in their remit. The following year the membership was expanded to include private sector organisations and civil society, which was essential to creating a multistakeholder forum as governments require the help and input of all stakeholders and stakeholder organisations. In 2005 first internet governance forum in the world was organized by the CTU.

The core activities of the organization include harmonized ICT policy formulation, capacity building, regional ICT coordination, representation of the region, industry watch, advising member of developments and implications for policy.

In the 13th year of the forum the CTU is focused on:

- The introduction of the third Caribbean Internet Governance Policy Framework, a living document which CTU works to implement
- Increased awareness and understanding for internet governance issues
- Increasing awareness and participation in global organisations and for a
- Improvement in critical physical internet infrastructure
- IPv6 awareness and adoption
- Greater awareness of cybercrime and the need for cyber security

The strategic focus of the third edition of the Caribbean Internet Governance Policy Framework includes:

- Infrastructure for broadband connectivity
- Internet technical infrastructure and operations management
- Legal framework and enforcement
- Internet content development and management
- Public awareness & capacity building
- Research

The challenges of the Caribbean Internet Governance forum include:

- Limited reach and impact at the national level
- Insufficient attention at the national level especially when speaking to government ministers
- Lack of capacity and insufficient organisations for addressing internet governance issues
- Dearth of skills/weak pathways for advocacy
- General disconnect between regional and national level
- Caribbean single ICT space

The CTU has developed a road map for the Internet and internet governance as a necessary part of the Caribbean single space so that information can be fed in at national level and vice versa and for national IGFs to participate directly. The new approach for the Caribbean Governance forum is:

- To establish internet governance structures at the national level to provide leadership, support and benefit from Caribbean IGF experiences
- Cultivate a new generation of professionals with the necessary expertise to enable them to represent their countries and actively participate in fora that determine the future of the Internet
- Train national decision-makers to develop Internet policy, strategy and implementation plans
- Foster Internet-enabled entrepreneurship
- Train and mobilize national stakeholders into communities of interest to execute national internet governance activities
- Strengthen collaboration and strategic partnerships

Training is vital as is not sufficient to simply discuss the issues. We need to get things going and execute/advance this agenda. The Caribbean forum can be lauded for its work with internet governance policies. There is a challenge where a lot of training is happening but persons aren't retaining the information. This is a result of not putting the information into practice. The focus needs to be on training to execute i.e. training that is done in order to help individuals deliver on a plan.

There is a lot of work to do in the area of awareness building so that the average person understands what is going on with the internet. IPv6 adoption needs to be accelerated and there was a call to make Barbados the first IPv6 nation in the Caribbean. Participants were invited to attend the Caribbean Internet Governance Forum 21st -23rd August, 2017.

Host Remarks

Dr. Justin Robinson – Dean, of the Faculty of Social Sciences, UWI Cave Hill

In delivering the host remarks Dr. Justin Robinson indicated that UWI was pleased to be a part of the event. He stated that UWI is focused on revitalizing Caribbean development and revealed that UWI had recently completed its strategic plan which has three aspects called the Triple 'A': Alignment, Access and Agility. The use of ICTs is an integral aspect of this strategic plan.

Access to a university education is still a challenge. Statistics stated that only 7.8% of Barbadian students get five or more O' levels in one sitting which is the minimum requirement for entrance into UWI. The University is moving towards having lectures available to students online and development of shorter courses.

Alignment refers to demystifying the university as graduates were still seen as somewhat apart i.e. "those on the hill".

Agility refers to the ability to respond to students' needs and the needs of various stakeholders., access and agility. The university sees ICTs as an opportunity to improve their agility. UWI is looking to have more of their content available online and using ICTs to achieve a more dynamic institution as they seek to revitalize Caribbean development.

Sponsor Presentation – IBM

Don Leahy – Cloud Computing, Business Development Executive, IBM Canada

In the sponsor's presentation Mr. Don Leahy spoke about cloud based solutions made possible through the internet. The internet is a vehicle to access products and services, enabling individuals and businesses to have capability on an equal playing field.

Organisations want to sell their services through the internet or expand their capabilities across the globe and as such, IBM has been moving away from the manufacturing of IT products and supplying services across the globe that everyone can access through the internet and other network connectivity options. IBM is taking the services that they used to sell and enabling them through the internet. The biggest issue with use of the internet is security and IBM is addressing that with security layers.

IBM possesses the capability to leverage a synergistic type of hybrid cloud. IBM has helped higher education to become more capable by providing greater access to the skills, abilities and tools needed to use in their curriculum. Some of the colleges and universities in Canada have deployed Linux solutions enable students to access tools for free once it is being used in the curriculum. There is also the possibility for students who show initiative to expand their ideas into startups and to become part of an incubator programme. There is also the possibility those successfully developing programs can be moved into a commercial space for the first twelve months and allow students to develop a business model. What the program does locally is that it allows

individuals to expand into these spaces that possess new technologies, leveraging skills and abilities that are developed and built locally and distribute around the world through the internet and cloud capabilities.

Another tool that is good to focus on in terms of learning skills in the market is Blockchain. Some companies can save billions of dollars through utilizing this new technology. For example, when one deposits a US cheque in Canada the bank holds it for 30 days, with Blockchain this can be done in minutes. The forum is a great initiative for Barbados to develop skills in house by leveraging the Internet to get at new technology services that are out there.

Question and Comment Segment

Lisa Evanson, Evanson Strategy Consultants asked: Do we really have enough IPv4 addresses to last given that there is a 110% device penetration in most of the Caribbean? How close are we to getting IPv6 as the mobile population does not take into account the smart televisions, Fitbits and other devices online currently?

Bernadette Lewis, CTU responded: CTU is not in position to say that there are that many. The representative was of the opinion that we have been talking about IPv6 for too many years. The argument advanced for not using IPv6 was that there were enough IPv4 addresses to last forever. CTU is of the view that the matter is a developmental one where citizens should not be denied IPv6 usage. She acknowledged that there are costs associated with the move as well as policy decisions and infrastructure that needed to be put in place. Fora such as the Barbados IGF are important as the stakeholders have to agitate as well. A task force is needed to advise and assist government with IPv6 implementation.

Albert Daniels, ICANN responded: One of ICANN's main objectives is to manage the IP addresses for the world at the top level and this is done through distributing blocks of addresses to regional internet registries (RIRs). There are two RIRs responsible for the Caribbean, ARIN and LACNIC. From their standpoint, it is clear that there are not enough IPv4 addresses.

The Internet Governance Ecosystem

Bevil Wooding – Internet Strategist & Caribbean Outreach Manager, Packet Clearing House

Mr. Bevil Wooding indicated that the forum was one of three internet governance forums established in the last twelve months. The internet governance arena was one filled with acronyms and organisations and strange terms. His presentation would focus on covering the why and what of internet governance, the main actors and key topics.

The internet is a worldwide network of interconnected computer systems. It connects things and people and is transforming life as we know it. The internet ecosystem can be defined as an interdependent network that is composed of non-living things and living elements all integrated and working together to ensure that the Internet is functioning properly. When thinking about the internet ecosystems it is important to recognize that the machines are important and their interconnections are important but equally import is the human component that supports and sustains the Internet.

How do you sustain life in such an environment? The internet has had a major impact on our lives personally, in our offices and our workplaces and in our environment. The internet is globally accessed for all kinds of reasons and purposes. What has allowed it to grow is that it is public property and based on open standards

that facilitate both social and economic development. The philosophy behind the internet is very clear and therefore it is important for ordinary users to play a role in the internet. Internet governance is a global, regional and national concern.

The kind of access you have to the internet is factored into your quality of life in the 21st century. When one thinks about governing the internet one needs to take into account that it impacts everyone whether they are connected or not. Global society is becoming increasingly dependent on the Internet for political, social and economic benefits. Understanding how the interconnections of organisations and agencies weave together is foundational to how we take advantage of and play our part securing and safeguarding the internet.

It is important for everyone to understand the Internet but unfortunately not everyone does. No one owns the internet but it is managed and monitored by various organisations and those organisations make their decisions based on who is represented. If there is a need by the region to see a different kind of internet, then Caribbean people must be willing to participate in the decision making processes.

Participation calls for awareness and knowledge because that participation needs to be meaningful. Internet governance actors include end users, private sector, civil society and governments. The internet at its core is a network of machines. There are different groups at these layers which focus on different things. Various actors focus on different priorities and infrastructural needs.

The Internet Corporation for Assigned Names and Numbers (ICANN) is a not-for-profit organisation responsible for the global coordination of the unique identifier names and numbers required for connecting to the Internet. ICANN is responsible for country code top level domains eg. .bb and generic top level domains eg. .com.

Internet Assigned Numbers Authority (IANA) controls numbers for protocols, the Country Code Top Level Domains eg. .bb and maintains the global IP address allocations.

Regional Internet Registries (RIRs) are responsible for distributing and managing the actual number resources. For example, when one types in google.com there are actual internet protocol or IP addresses that identify the machines on the internet that houses the information one needs. There are two RIRs in the region – The Latin America and Caribbean Network Information Centre (LACNIC) and the American Registry for Internet Numbers (ARIN). The RIRs are advocating for the use of IPv6 but they are nonprofit and their only power is stakeholders and the internet community. Mr. Wood stated that the historical pattern in relation to RIRs was that telecommunications companies request resources from the RIRs on behalf of companies and individual users. However, there is a need for people to seek out their own numbering resources. In order for the lobbying of the RIRs in the region to be more impactful in relation to moving the Caribbean to the usage of IPv6 the number of persons who lobby these organisations including end users, governments, businesses and network operators must be increased.

The Internet Society (ISOC) is a non-profit organisation that provides leadership in Internet related standards, education, and policy issues that affect the development of the Internet. ISOC is also the organizational home of the Internet Engineering Task Force (IETF). ISOC is keen on stakeholder outreach.

All these organisations are key to how the internet is managed. They are all non-profit, multistakeholder organisations and are open to all persons. All voices matter to these organisations and it is important to participate in forums at this level. For example, the telecommunications company may say that they have enough resources and that may be true if it continues to be managed at the same level. On the other side there are more devices, more users and more complex needs. From a business model perspective, the company may not want to spend money on training staff in the areas of IPv6 as there is a cost; but if there is

a different demand from consumers then there is still a need to train engineers in IPv6 and that is where network operator groups come into play as they do training.

IGF deals with every aspect of the internet, reflecting priorities and concerns of the stake-holder community which helps to drive policy and transformation in the overall environment. A forum at this stage where one is looking for more internet based development is key.

Some things that work include:

- Keeping a bottom-up approach for IGFs is a proven mechanism for wide engagement
- Meeting regularly
- Oversight committees that is community based

What is most important is quality of access to the Internet. Greater participation is occurring as challenges are evolving which need a more engaged user base. The Caribbean cannot depend anymore on someone else to say how we should use the Internet

Caribbean Focus/Priority Areas:

- Increasing Stakeholder Participation
- Strengthening and Securing Infrastructure
- Encouraging Local Content
- Development Improving Broadband Access
- Service Quality Strengthening Policy Frameworks

The importance work of these forums is to participate in shaping the our Internet. Participation in the forum helps to shape the local internet which impacts the global Internet.

Question and Comment Segment

Jason Hynds, Internet Governance Caribbean asked: Do you have an idea of how successful the outreach in the Caribbean has been over the last twelve years? Mr. Hynds queried whether enough people were being reached as we are trying to build the internet economy and ecosystem through an event like the forum.

Bevil Wooding, PCH responded: Any definition of success is relative. More can be done but there has been success in some areas and we have been promoting the benefit of a Caribbean perspective in internet governance and encouraging participation in internet governance regionally and globally and in strengthening Caribbean infrastructure; more work needs to be done. One thing that can be helpful is having a more targeted approach to specific groups for example, training and developing specific skill sets. One thing the groups have been grappling with is how to move beyond general conversation to specific actions. There needs to be a more targeted approach to specific groups e.g. the police, judiciary etc. The conversations can be had in a focused way but feeding back into the national governance forum allows for more structure.

Jason Bowen, Promotech asked: How can one move to a 'CARI Mob' effect to influence people. How can we leverage that type of mentality as seen in the 'CARI Mob' effect to influence or encourage group mentality to say that one is going to bring customers to the business and ask what can the business provide in return?

Bevil Wooding, PCH responded: The targeted group approach that was suggested in the answer to the previous question does what was asked. When looking at some of the challenges to accelerated internet development some of the major challenges include access, quality of access, content and availability of local content. There are some very specific bottlenecks such as government policy, business development and intellectual property issues that most users are not able to deal with. However, if there was a specific group looking at those bottlenecks it would be what is in it for the individuals. That is how specific groups involved need to be targeted by showing them how improvement in those areas helps them in their execution.

Hallam Hope, Barbados Renewable Energy Association asked: Whether there is one single government in the Caribbean that is actively pursuing IPV6.

Bevil Wooding, PCH responded: Not aware of any government that has an active policy for IPV6 but he is aware of the intentions of groups such as LACNIC and ARIN to accelerate the development of such policies. The telecommunications companies are not interested from a business perspective as IPv4 functions sufficiently at this present time, but there is need for more people to be involved to state what is needed now for the future. Caribbean governments should take the lead by making it a requirement for network service providers that they be future proof and use it as a way to incentivize the process.

Increasing Participation- Fellowships, Ambassadorships and Opportunity

Moderator: Bartlett Morgan (ISOC BB)

Panelists: Shernon Osepa (ISOC); John Sweeting (ARIN); Albert Daniels (ICANN); Kevon Swift (LACNIC)

The panelists represent different organisations in the internet governance system. Each panelist was asked to give a general background of their organisations and the unique value propositions of the organisations.

Shernon Osepa opened the discussion by explaining that ISOC is a global organisation with three main areas of focus:

- Standards development where the focus is on internet related standards
- Policy development
- Capacity building and education

The mission of the ISOC is that the Internet is for all. Participation in internet governance is not just about going to an event and returning home, it is about what actions will happen on the return home. So the organisation identifies key people in the region that can put into action what they have learned and add value.

Kevon Swift stated that LACNIC is one of five Regional Internet Registries. The core functions of the organisation are the distribution and management of internet number resources i.e. IP addresses and autonomous system numbers (ASNs). In addition, the organization tries to promote a secure, open and stable internet to the benefit of the development of the Latin American and the Caribbean societies and also promote a multi stakeholder model of collaboration. Within the aforementioned they undertake a number of development activities. For example, the Freda initiative which is a regional fund for digital innovation in Latin America and the Caribbean. The organization offers training online that anyone can apply for, it also goes to countries and delivers hands-on training.

Albert Daniels explained that ICANN manages the system of unique identifiers at a global level that allows the internet to work. People are the most important part of ICANN and there are three dimensions of ICANN:

1. The multi stakeholder community
2. The staff that facilitate working groups, help with events and work with RIRs
3. The ICANN board which is the final step in development of policies

John Sweeting explained that ARIN handles IP address and ASN requests and manages the help desk and ARIN online questions that come in. When one contacts the organisation one gets to talk to a real person as it is manned 12 hours a day during the weekday. The mission of the organisation is to manage all internet number resources according to policy. The policy is created by the community and another area for the organization is to coordinate the development of the policy. The other part of the mission is to perform informational outreach. For example, his attendance at the forum is an example of an informational outreach. Key to performing informational outreach is an active and engaged community. The organization is here to serve but it needs to know how to serve.

The moderator asked: What opportunities are there for persons to get an initial introduction into ARIN?

John Sweeting responded: There is a fellowship program to allow anyone who has an interest to get involved. The program started in 2009 and currently it sponsors up to 15 fellows per meeting to any of their meetings (they have two meetings a year). Applications for ARIN 40 are currently open. There have been several fellows from the Caribbean region. The program covers airfare, stipend for incidentals and meals, hotel and a seasoned community member or someone from the advisory council as a mentor.

Kevon Swift responded: LACNIC has a fellowship program called the financial assistance program which started in 2003 and supports up to 100 persons across Latin America and the Caribbean. The events are centered around the public policy forum and those policies which are determined are about how the internet numbers are managed. Other information sessions are also included such as ISPs in the region, security, women in ICT careers, IPv6, and there are a lot of training workshops on the day prior. There is no distinction between those coming from the Caribbean and those from Latin America in the selection of fellows. They want to see more Caribbean persons coming to the event as there is a need to support more Caribbean persons in certain areas of LANIC. The fellowship is done in 3 modules; provision of a return ticket to the event, or accommodation and in both cases the registration fee is waived. Latin America and Caribbean IGF (LACIGF) is a similar approach and is scheduled for 2nd – 4th August, 2017. The idea is to encourage Caribbean participation and exchange information and what obtains in the Caribbean in those spaces.

The moderator asked ICANN about their uptake of persons from the Caribbean for the opportunities.

Albert Daniels responded: It is important to attend these activities. Internet governance is global and there is a lot that affects Caribbean people. Therefore, we need to be aware of these issues and take advantage of participation and do so before the policy is set. The organization offers forty fellowships across the globe and it is very competitive; but the advantage occurs when the event is in a particular region. Persons from that region get priority for the fellowship. There have been some applications from the Caribbean but it is disappointing due to the small numbers. There can be up to thirteen parallel sessions going on at the same time in any given meeting. The organisation pays for airfare, accommodation, and a stipend. ICANN is not a place for just the technical persons even though there is a lot of jargon being used at the meeting. There is also a fellowship program for university students called NextGen.

The moderator requested a general idea of ISOC's situation currently, and the challenges it faces in terms of engagement.

Shernon Osepa responded: There are two types of programs at ISOC; training programs and funding programs. The funding programs support the United Nations sustainable development goals and ISOC focuses

on 14 out of those 17 goals specifically. There are other challenges facing the world such as climate change and while persons are talking about ICTs there needs to be focus on those challenges as well. ISOC has always been focused on development and has trained more than 300,000 people on internet governance, more than 100,000 on access, trained more than 30,000 poor women and girls as well as provided training for the disabled community on how to use the internet.

They also provide grants for chapters. There are three levels of the grants:

- Large grants: Up to 30,000 USD
- Medium grants: Up to 10,000 USD
- Small grants: Up to \$3,500 USD

There are also online courses available as well focused on internet related challenges. For example, how to build wireless communities and combating spam. There are also tutorials and then more at the technical level it is about how to protect against spam and how to combat online threats. The organization likes to see people connected to the internet and because out of 7 billion people in the world only 1 billion are connected, the organization has a lot of work to do. There are focusing a lot on wireless networks as a result of the above to help communities to build their own networks. There are leadership and fellowship programs offered by the organization to attend the Internet Governance Forum. There are also fellowships to attend the IETF meetings which focus on technical and policy matters. There is also a program called Youth in IGF focusing more young people.

Question and Comment Segment

Rodney Taylor commented: It is important to get people to show up. It is also about making meaningful interventions and thus one needs to be prepared. A determination on how to prepare our people for such meetings is necessary.

Kevon Swift responded: Very much like charity, governance begins at home. Internet governance is a very complex and diverse space and thus people need to be prepared. LACNIC works with governments on these areas but it is about how do you get legitimacy and funding for the initiatives.

Albert Daniels responded: All policy work at ICANN is done through online working groups and the best way to learn is to participate in working groups. After a while your level of knowledge grows. He encouraged participants to find out how one can participate in organisations such as ARIN, LACNIC etc.

Shernon Osepa responded: A mentor is assigned to ISOC ambassadors attending meetings so that persons are not lost in the technical jargon and can seek clarification for things not understood. Participants are also encouraged to meet with people responsible for the particular topic when they return home.

The moderator queried what the profile of a successful applicant looks like.

John Sweeting responded: The key is to be involved early as that is taken into account. For example, attending the remote meetings and so on. It was highlighted that three of the current advisory council members started in ARIN as fellows.

Albert Daniels responded: Another way to participate at the global level is to participate at the local level. The events come to the countries so participate in the local event and get exposed to the issues and be informed in the interventions.

Lisa Evanson asked for more information about the youth programs and the age range of the youth involved and what future age the organisations may be targeting in the future as it was felt that younger persons were interested in governance as well.

Shernon Osepa responded: There are two groups at ISOC, persons up to 25 years old can apply under the youth in IGF program and the other programs are open to persons up to 40 years.

Kevon Swift responded: At LACNIC there is a Youth LACIGF program which involves a number of young entrepreneurial students which are university students for the most part. It starts from first year university students to 35 years old.

Albert Daniels responded: ICANN cannot do everything based on their mission. The organization decided to target university students with a formal program but also do different things with the other age groups and that is why the NEXT Gen program was established which is specifically for university aged students. Their global engagement team also interacts with younger groups. For example, they would have had representation at the Girls in ICT event in Barbados where the organization interacted with much younger students.

In their closing comments the moderator asked for any final thoughts from the panelists and best way to keep in touch with the organisations on the panel.

Kevon Swift responded: In terms of IPv6 regulations, in the Caribbean there is the example of the Dominican Republic that developed a resolution in July 2015 that speaks to entities that interact with large public infrastructure and the requirements for IPv6. At the level of LACNIC there are a lot more requests for consultations from governments. LACNIC is the point of contact to connect persons with those who can guide the process. The discussion should start at this level in relation to the forum as individuals can get a lot of stimulation of thought at these types of meetings.

Shernon Osepa responded: Persons can stay in touch by visiting the website www.internetsociety.org. There is also the local ISOC chapter that persons can get involved in. Persons can also find information online on Youtube.

John Sweeting encouraged persons to find a mentor if they are just starting to get into internet governance issues or talk to anyone with experience. The danger lies in trying to do too much at one time as it could seem overwhelming.

Albert Daniels responded: Why should one attend an ICANN meeting? Because ICANN deals with important issues such as DNS security which is something that participants should be interested in as it is important to ensuring that online transactions are secure and safe. It is also important to participate in the discussion to give the Caribbean a voice and so that decisions made are possible and practical for the Caribbean. Another reason given for participation was to help determine how any funds available should be spent. The website for the organization is www.icann.org.

The moderator concluded the session by saying that there was an abundance of opportunities available for people to get to these forums and other opportunities available to broaden participants' knowledge on internet issues.

How Well Do You Know The Law?

The audience engaged in an exercise to explore their knowledge of Internet law in Barbados. The audience was split into 4 groups. Each group was given a flip board for notetaking and designated one person to report on their discussion to the wider audience at the end of the exercise. Each group was given a scenario of a cyber incident. They discussed whether they thought incident constitutes an offense under Barbadian law, whether it should, penalties, etc. They were then given a copy of the offenses under the Computer Misuse Act and discussed whether the scenario was covered adequately under the act, if the penalties fit the crime and whether revision or new legislation was needed.

Scenarios:

Mark and John used to be business partners but had a falling out over their failed business. Mark maintains that John embezzled hundreds of thousands of dollars from the business and their clients and is responsible for Mark's personal and professional ruin. He takes to www.unscrupulousbusinesspeople.bb to tell his story. Included in his public post is John's full name and home address. The post goes viral and the users on www.unscrupulousbusinesspeople.bb start harassing John on and offline. Eventually someone sets John's house on fire. Is Mark criminally liable?

Stacey and Henderson are a couple. One day while using Henderson's laptop to complete an assignment Stacey stumbles onto a series of explicit photos and videos of Henderson in a compromising position with another woman. Stacey, realizing that Henderson is cheating on her, exacts her revenge by publicly posting these photos and videos to social media. Is this a case of revenge porn?

Frank is the CEO of a lucrative business. While overseas on a business trip he receives a text from his secretary who is at the office. The text says that she has sent off a wire transfer per his instructions. Frank is confused since he didn't ask her to send any wire transfer. Investigations reveal that Frank's secretary received an email that appeared to be from Frank advising her to wire \$1200 USD to an account to cover his hotel costs as his credit card was being declined. The secretary, in an attempt to be efficient and helpful, complied without question. What legal recourse does Frank have?

Errol is a seasoned politician. He is well known across the country and is preparing to run in the next election. An unknown person who seeks to derail Errol's political aspirations has started creating social media accounts using his name and images of him. The accounts make frequent appearances in online discussions, making comments that reflect poorly on Errol and his running mates. They also reveal personal information, frequently untrue, regarding his family life and business dealings. Can the person(s) behind this campaign be charged?

The exercise was well received. All groups engaged in robust debate before reporting on their conclusions to the wider audience. There was meaningful intervention from lawyers and government officials who were familiar with the law and its application. Much of the audience felt that the scenarios were a reflection of real events and the law was not adequate to deal with these instances. However, some people disagreed and felt that there was no need to update or enact new legislation.

Internet Law in Barbados

Mr. Charles Leacock – Director of Public Prosecutions, Government of Barbados

Mr. Charles Leacock in his capacity as DPP and has worked with the OAS on cybercrime and cyber security, providing the Barbadian perspective on this issue. The OAS has a unit that focuses on terrorism and counter-

terrorism that deals with cybercrime and cyber security related issues. Criminal law, which is territorial in nature, cannot adequately address the Internet which is transnational and generally globalised. Internet crime is any abuse of a computer related system for any financial, terroristic or altruistic gain.

There are two ways contain or prevent internet crime:

- Encryption
- Preventing access to the system

Barbados has 80% internet coverage which is very good coverage for a small country. The Internet has afforded great convenience. Anything that had afforded great use is also susceptible to massive misuse. Public information is accessible and available through the government portal which seeks to raise awareness.

Legal infrastructure of the Internet in Barbados includes the following legislation:

- The Computer Misuse Act
- The Electronic Transactions Act in which wills and deeds, and trusts are the exceptions to the act as in those cases you must have a written document.
- The Copyright Act
- The Telecommunications Act
- The Corporate (miscellaneous provisions) Act
- The Draft Data Privacy and Protection Bill

Barbados' legislation has been inspired by several international developments including:

- UN Efforts and Resolutions since 1990 on Cybercrime and Cyber Security
- Council of Europe (COE) Convention on Cybercrime, 2001 called the Budapest Convention with its 47 members
- Commonwealth Draft Model Law on Digital Evidence based on the Budapest Convention and has been enacted in several CARICOM countries including Barbados
- The Commonwealth Draft Model Law avoids the need for 1272 bilateral treaties
- OAS efforts at raising awareness through its public website and Expert Group of Cybercrime under the REMJA remit

In 2001 the council of Europe agreed on The Budapest convention which has become the international standard on cybercrime legislation and therefore most legislation around the world is modeled on the Convention.

One of the main criticisms on this Convention is that although it allows for accession by several countries it was only originally drafted by 47 member states and for any amendments to be made those 47 states must agree even if the suggestion comes from outside. It is not regarded by many countries who were not invited to participate in it as a truly global standard or instrument as they never had a say. However, it is a useful instrument that has inspired much of the legislation around the world.

As a result of the Budapest Convention, the Commonwealth (53 nation grouping) decided to do something as many of the Commonwealth Countries were not invited to participate. They produced a model bill that was largely modeled on the Budapest convention and that became the standard that is implemented in most Commonwealth countries like Barbados. The commonwealth model avoids the need for 1272 bilateral treaties if each country were to sign a treaty with every other country. The Commonwealth and other large member

grouping such as the OAS use a model treaty so that all member states can discuss and implement it and therefore have uniformed standards and a uniformed approach to address matters of common interest.

Offences Under the computer misuse act include:

- Illegal Access - Section 4
- Interfering with Data - Section 5
- Interfering with Computers Systems - Section 6
- Illegal Interception of Data - Section 7
- Illegal Devices - Section 8
- Access with Intention to Commit an Offence - Section 9
- Unauthorized Disclosure of Access Codes - Section 10
- Offences Involving Restricted Computer Systems - Section 11
- Unauthorized Giving or Receiving Access to Computer Programs or Data - Section 12

Offences above are offences that address largely the integrity of the computer systems and seek from a policy point of view to address the integrity and confidentiality of computers and computer systems. Even if a hacker does not change any information that one has hacked it is still considered an offense as illegally accessing data is an offence.

Child Pornography - Section 13

One of the major offences under the computer misuse act and that has emerged with the use of the internet is child pornography. A real, morphed or pseudo image of a child is an offence. These images can give children the idea that it is acceptable or normal conduct for children to be involved in these activities. For the purpose of the Protection of Children Act, a child is anyone under the age of 18. It was noted that prosecution is only possible when there is sufficient evidence for a realistic prospect for conviction.

Malicious Communications - Section 14

The Malicious Communications Act requires sending of correspondence, messages, letters, any article of electronic communication that is indecent or obscene; threatening; menacing in character intending to cause the person receiving it annoyance, inconvenience, distress or anxiety. If you send out an email or blast about a massive killing for example, even if you believe it to be true, it may constitutes an offence. If it is true, there is no criminality and thus cannot be prosecuted. If you repost something that is false, you are still liable but you might be able to mitigate your culpability if you were not aware that it was true.

The problem is how do you balance the right to free speech with whether or not what you are saying is criminal? The balance has to be struck between whether or not the information is of any great public interest; the public or readership's thirst for certain sensational reporting is not protected under the free speech.

There are two general types of cyber issues:

- Semantic attacks involve changing, alteration and publication of correct and incorrect information and documents
- Syntactic Attacks are done through malware being software installed on users systems by penetration and illegal access in the form of viruses, worms and Trojan horses

Effects of cyber-attacks can be quite distressing as it can deny service, manipulate and/or destroy information.

Jeremy Jones asked: Is there any mechanism to review the act periodically?

Charles Leacock responded: Technology changes rapidly and there is always a need for a dynamic approach. For this reason, if citizens are aware of any shortcoming that need to be addressed they can write to the chief parliamentary counsel or the Attorney General drawing attention to the deficiency. It would then be referred to the law commission. One can also include recommendations on how the deficiency could be addressed. You can also write the telecommunications department.

Ashell Forde, Barbados IGF Steering Committee asked: Are such communications to the Attorney General a matter of public record?

Charles Leacock responded: The Attorney General may state that he received correspondence but would not say from whom.

Ashell Forde asked: If a citizen wanted to know if anyone had written to the Attorney General about certain deficiencies is that information available?

Charles Leacock responded: There is no freedom of information act and thus that information would only be accessible from the Commissioner of Police in respect to a criminal matter.

The actors in cybercrime include governments, proxies, hacktivists and terrorists.

Challenges with the internet law in Barbados include:

- Understanding and shaping cognition
- Many countries lack adequate legislation and executive policies on cybercrime
- Need to encourage businesses to invest in cyber security
- Recruiting and maintaining cyber security staff
- Managing information volume, velocity and variety in public interest

It is within the interest of companies and person's self-interest to address internet security and to put a line item in there budget.

As a country one has to address cyber threats to the infrastructure. Growth of cloud-based attacks will increase. Citizens should be careful of what they put on the Internet as anything you put online can be accessed.

Question and Comment Segment

Jeremy Jones asked: Why are more people not charged with cybercrime? Is it that persons do not come forward or is the mechanism not easy to follow?

Charles Leacock responded: One can only charge a person if there is evidence and thus there needs to be a complainant and even when you have a complaint one still has to have the information of the user who posted the material in question. That is quite accessible but input from technology companies and the ISPs is needed and this is seldom forthcoming as these companies have a culture of secrecy. Even if you can't get the owner of the website you can charge the person who made those posts.

Jeremy Jones asked: How do you handle multiple jurisdiction?.

Charles Leacock responded: It doesn't matter where it is posted once the publication appears in Barbados and it occurs within the territory Barbados has jurisdiction to charge within its territory.

Stephen Williams asked: Are there any statistics on the types of cybercrime prosecuted since the law has been enacted and what role could IT professionals play in prosecuting?

Charles Leacock responded: One prosecutes once there is a breach in criminal law but there must be a complainant. Largely people are complaining about things that would constitute defamation such as untrue posting. Most of the complaints are therefore about personal reputational damage. There are some complaints relating to photographs mainly revenge pornography.

Ashell Forde asked: What is the challenge in relation to prosecuting revenge porn? Why are more people not ending up before the law courts and what can the public who is concerned about these acts do to get them stamped out?

Charles Leacock responded: There is no challenge; the question to be asked is whether the victims reported the matter to the police. A complainant does not need to be the subject of a video or picture to report it to the police. There is a difference between how you treat child pornography and adult pornography as child pornography is considered a crime against the state. The standards vary between the two. If a person has reported the revenge porn to the police, it still needs to be investigated and evidence found to substantiate such and the person still needs to testify. There are various thresholds of admissibility and reception of evidence to get over in prosecuting cases of revenge porn. If you feel that the police are not pursuing the matter write to the DPP and make an official complaint.

David Smith asked: Is security camera footage admissible in court?

Charles Leacock responded: It is admissible in court but it is subject to verification of the authenticity and accuracy.

David Smith asked: Is the information gained through hacking admissible in court?

Charles Leacock responded: The manner in which evidence is received is under the presiding officer's discretion but it is still admissible.

Jason Hynds asked: Is there a role for the Internet Society beyond the forum to engage with the public more specifically young people on what is better and acceptable behavior to not violate the computer misuse act in their internet activity?

Charles Leacock responded: The question requires a multifaceted approach as the law is only one aspect by which that can be done. Other aspects to get young people to change their thinking or mindset include public awareness, education, better self-regulation. It is why this forum and others like it are important and useful as it brings various stakeholders together so that one can create a cyber-security strategy for the country and education and public awareness would be a major component for such a strategy.

Albert Daniels asked: What have you been seeing in the attitudes of the victims who go the full course in dealing with these issues?

Charles Leacock responded: There are some victims who are willing to go the full course but the cases get stalled when they have to request assistance/information from some sites. One useful thing that can come from these forums is a mechanism to address the above and how can there be greater cooperation from the ISPs as they are critical to the law with respect to releasing information.

To conclude the DPP emphasized that internet law requires constant education of staff on cyber security. Never make fun of employees who raise red flags and ensure that your computer incident response team (CIRT) is functional.

Are Legislation Gaps Harming Business

Moderator: Antonio Lythcott (Northpoint Consulting Inc)

Panelists: Roger Barker (Solicitor's General Office); Julian Greig (Caricraft.com Inc.); Gabriel Abed (Bitt); Philip Lewis (Northpoint Consulting Inc.)

Roger Barker commenced the discussion by stating that when one speaks of legislation or statutes it is the law made by parliament. Generally, there needs to be some problem in society or manifesto promise that drives the creation of legislation e.g. bullying in schools. Something has to happen to drive policymakers or the general populace to call for specific legislation. It is important to note that people have a role to play in what goes into legislation. The public has reneged on their responsibility by leaving it to the politicians to do all the decision making.

Generally, when legislation is written persons are invited to give their feedback through town hall meetings. There are also groups such as activists and advocates that would comment on the gaps that exist before the legislation is passed in parliament. However, in most instances persons do not comment on the challenges that exist before the legislation is passed but wait after to comment on the challenges. To construct the best legislation possible there is some need for foresight or forward thinking and it therefore depends on our vision to put the necessary measures in place to address the issues.

Gabriel Abed, in speaking about his company, said that it was a financial technology company providing financial solutions for the Caribbean. The company has been trying to introduce financial products to the various layers in the community; for example, the central bank, financial institutions and normal citizens. It is about the ability to move money seamlessly.

Philip Lewis works for a telecommunications and IT company that deals heavily in data and information. He noted that people seemingly trust Amazon for their transactions. There is an Electronic Transactions Act but persons are not educating themselves about what is out there in Barbados and how one can use the facilities available.

There are gaps in the legislation but there are also gaps in the knowledge of our people so there is a need for public education. There are issues that are more about people than technology. No Privacy and Data Protection Act or Freedom of Information Act exists in Barbados and these are important pieces of legislation to enter into the internet sphere. A country like Barbados needs access to information. Government is typically one of the larger producers of data and citizens need access to this data. There is more work to be done to make data freely available. One needs to ensure that citizens are doing the right thing through compliance. There was a call to build in cyber security issues in compliance.

Julian Greig owns a company that is an online retailer of authentic Caribbean goods. There is information available to the public concerning e-commerce but there is not enough discussion around it and thus nonfactual information is spread and persons believe it without doing the necessary research. He spoke about the confidence in the system and the fact that Barbadians were comfortable to use their credit cards for online shopping in an overseas market such as to shop on Amazon but are not as trusting of Barbadian and

Caribbean companies with an online presence. Therefore, discussion needs to be held about why the confidence in the Caribbean context does not exist. Where are we processing our merchant accounts to create an add on in the costs of doing business which will have an impact in the Barbados internet economy?

Question and Comment Segment

One participant queried why Mr. Abed's company was established even though no legislation was in place in the area of crypto currency and whether this would not affect confidence in his business. How does he advocate or negotiate with regulators and legislators to make his business a viable one in Barbados.

Mr. Abed responded by saying that the company spent too much in getting legal opinions, active legal research and lobbying for legislative reform. The company is still yet to see success despite having accomplished some amazing things to date. They are limited in that area to launch a full product that can reach every citizen due to a lack of legislation. The company cannot take the next step due to fear of the legislators. They could be shutdown at any point, thus the potential of the company is hindered due to the absence of local legislation. It is not only legislation that is a hindrance by the surrounding ecosystem. Legislators also need to keep up with technology and be more efficient at technology reform.

Another participant asked Mr. Roger Barker what could be done at the legislative level to assist Mr. Abed.

Mr. Barker reiterated his introductory remarks by saying that it is about convincing the powers that be that there is a need for what he is proposing or legislation. The pace of reform is very slow. Mr. Abed argued that the powers that be are well aware of his company, but politicians and so on are so focused on running the economy that they are not interested in getting the legislation in place. Philip added that Barbados was not special as legislative reform affects all countries; some countries have been able to do it in an efficient and cost effective manner. The country needs to reform and to get on board as it is not a choice.

Stephen Williams asked: How does one make IT more attractive as it was felt that this was needed for persons to see its importance and unless it is put in a context that persons could see its relevance it would remain underutilized. Legislation such as the Computer Misuse Act has been put in place and still nothing is happening.

Gabriel Abed responded: Users find it attractive, it is not the attractiveness that needs to sell but survival. One needs to take responsible soft next steps. A sandbox could be used to test new legislation before the act comes into play and if it is successful then it can be translated to the entire country.

Lisa Evanson asked: How many of the concerns raised during this discussion are legislative gaps and how many are execution gaps?

Julian Greig responded: Legislation is one piece of the pie but one needs to move along to education for the people. There is confidence that some international sites such as Amazon are keeping the information safe but the system used to keep that information safe is the same system Caribbean sites are utilizing.

A participant asked: In the absence of regulation and fear of running afoul of any new legislation where do policy decisions come from?

Gabriel Abed responded: The company takes best practices from the industry and follows other regulatory frameworks such as the New York Bitt license. This harms the company and its ability to generate more revenue as they attempt to not to jeopardize the last four years of their work.

Jason Bowen asked: What is stopping BITT from extending to other Caribbean countries if so many issues arise in Barbados?

Gabriel Abed responded: Closing down the company here and putting persons out of work was not an option as he was a citizen of Barbados and looking to help the country. So it is about being that change that he wants to see.

A participant asked: How do people leverage CSME to influence the legislation that is needed?

Gabriel Abed responded: The vision of the company is to build out in the Caribbean settlement network in time which bolsters on article 14 of the revised treaty of Chaguaramas.

Philip Lewis responded: There are challenges in the way we are structured in Barbados to deliver ICTs but it is where he lives and he wants to help fix Barbados.

Lisa Evanson commented: The previous discussion alluded to an antagonistic approach between technology companies and government. She asked if that exists in Barbados and if so does the antagonism hinder how we close the gaps.

Philip Lewis responded: His company was not antagonistic to or trying to fight government. In fact, he wants to support government and helps fill deficiencies that exist. The company is about providing IT services in the most professional manner. He went further to state that the company's mission is about providing the best level of service to Barbados but that is dependent on if ICTs are employed effectively; and it is not employed correctly at all times for example, in the area of education especially when compared to other countries.

Brian Linton commented: In relation to legislation gaps and losing money in the case of mobile apps, an app developer creating an android app needs a Google merchant account to sell that app. However, google does not support Barbados but supports Jamaica and therefore to sell the app persons would have to register in Jamaica. The piece of legislation that is missing is the Data Privacy and Protection Act. How does one change legislation or begin the process to get the legislation changed?

Roger Barker responded: It is important to know who to convince that this needs to be done and done quickly. It is a slow process and thus interested parties need to put pressure on the powers that be or government to bring it to parliament.

Ashell Forde asked: Is confidence really such a major issue, especially from the perspective of a younger demographic or if it is a case that the demographic being targeted may have the issue of confidence.

Julian Greig responded: There are a number of local retailers that have gone into online services but not a lot of people utilize those services. Those persons are not aware of the legislation put in place and whether the transaction is secure.

Philip Jackson congratulated the organisers of the forum as the space allows persons to share their concerns and there are lot of asymmetries between the policymakers and entrepreneurs. He said that persons needed to start reimagining Barbados as a digital economy. There is also a need to create more opportunities for participation.

The moderator said that there is a situation of a knowledge gap between the structure that exists that approves legislation and IT professionals and one needs to find the vehicle to empower them to make decisions more speedily. How do we bridge that knowledge gap to allow businesses like BITT to survive with all the restrictions?

Day 2

Cybercrime in Barbados

Moderator: Gayle Griffith (Data Processing Department – Cybersecurity Unit)

Panelists: Superintendent Jefferson Clarke (Royal Barbados Police Force); Francois Griffith (ISSA Barbados Chapter) Brian White (ISSA Barbados Chapter); Mariette Simmons (ISSA Barbados Chapter); Deon Olton (Caribbean Cyber Security Center)

Mr. Brian White opened the discussion with remarks about the state of affairs of cybercrime in Barbados. In his presentation he defined cybercrime, spoke about what we know of it in Barbados and what are we doing about it. It was revealed that there are several instances of hacks in Barbados and that cybercrime costs the world over \$450 billion a year. It was highlighted that there is a legal framework in Barbados but it was asked if it is enough.

Various departments are responsible for numerous pieces of legislation in relation to the Internet and its use in Barbados. For example, the Cybercrime Unit of the Royal Barbados Police Force enforces the Computer Misuse Act in Barbados. Due to the fact that different organisations are responsible for different pieces of legislation the question was asked whether there were mechanisms in place to allow all of these organisations to work together. The National Cyber Incident Response Team (CIRT) that has been established is still in a state of infancy. There is a clear need for greater public education and to update the laws.

Ms. Mariette Simmons spoke about governance and the lack of governance in workplaces in Barbados and the Caribbean. It was revealed that ISSA had difficulty in carrying out a cybersecurity study as not many companies in the region did not respond to the survey instrument. It was stated that the biggest challenge was getting organisations in Barbados and the region to report. The report stated that over 89% of companies in the sample do not report cybercrime. This is due to the fact that in the region there are no mandatory protocols for reporting. Having an IT department was seen by most companies as doing enough to mitigate cyber risk. This could be because there is not a high number of reported cases and a Caribbean culture of being reactive as opposed to proactive. There is the need for an effective governance structure in the workplace. It is not only an IT issue. If something seriously goes wrong in the workplace the question will be asked how prepared was I as a business?

Mr. Francois Griffith provided a forensic perspective of cybercrime in Barbados. His presentation looked at the definitions of forensics and cybercrime, why forensics was important and an overview of legislation that is currently in use in relation to the Internet in Barbados. It was stated that it is important to preserve the evidence of cybercrime as it can be challenged in court and if it was not preserved properly it might not be possible to prosecute cyber criminals. The Computer Misuse Act was developed in 2005 and twelve years have passed since the act has been updated and technology has progressed. Mr. Griffith lamented that this was too long due to how fast technology is evolving and there is need to update that piece of legislation. It was noted that there are other pieces of legislation that can be used in the case of the Internet and its use but the applicable punishments may not be enough in some cases. There was a call for a strategy to address these issues.

Deon Olton began his presentation by categorizing organisations across the world thus:

- those that have been hacked and protect themselves

- those that have been hacked and will be hacked again
- those that have been hacked and don't know that they have been hacked

Cybercrime is a business and it has become the new way in which the criminal community funds their activity. Reference was drawn to how low the level of security in Barbados and the Caribbean is as was seen in the ATM scam, it was felt that ATMs were targeted in the region as we are at a low level of security. There was also mention of the law and punishment given for the offences committed and it was felt that the law was not efficient and punishments not adequate for the crime. Mr. Olton reiterated Ms. Simmons's point that one missing element of the law in place was that there is no requirement to report; thus there is no responsibility on anyone. The problem with the cybercrime threat is that it is a multidimensional threat. It was noted that there was a greater need for a citizens' awareness program as what currently exist is not enough. The broader issue of cybercrime is that it poses a real threat to national security. As persons were no longer using traditional means but technology.

There was a call for:

- Awareness campaigns at age appropriate levels for all persons
- Adequate analytical responses for law enforcement
- Cyber defenses at all fronts
- Utilization of preventative measures
- Mandatory reporting of cybercrime

Mr. Olton ended by suggesting that what comes out of the forum is a starting point of a multi-stakeholder approach that is needed to bring a level of awareness and support to improve security in the region.

Superintendent Jefferson Clarke brought a law enforcement perspective of cybercrime in Barbados. It was revealed that most of the time crimes in Barbados are not reported because people do not believe that the police have the resources to investigate them. There is a digital and cybercrime unit within the Royal Barbados Police Force which is five years old and consists of three persons. There was an acknowledgement that laws generally speaking in any country will lag behind the technology. The unit serves its purpose but it was admitted that it is woefully inadequate for what is happening in the industry. There was also recognition of the need to create the necessary tools and legislation to address this new type of crime. Law enforcement defines cybercrime as "any crime committed using a computer or network"

There were 28 reported cases of malicious communication last year and 13 so far for the year. Business email intrusion for the purposes of phishing was also mentioned as a crime that was on the rise.

Question and Comment Segment

Charles Walton, online participant commented: The statistics from Mariette's and Brian's presentations were disturbing and boardrooms seemed to be ignorant to cyber security. How does one start raising awareness in Barbados?

Mariette Simmons agreed with Charles that there was not enough being done as cybercrime and cyber security was still seen as an issue only in developed countries and not happening in the region. There is a need to educate companies to see cyber security as part of their financial measures and to put controls in place to prevent these crimes. The ISSA Barbados Chapter has started doing outreach in schools to build awareness.

The organization would like to get into more schools to assist parents in seeing the risks and dangers associated with technology.

Deon Olton responded: The boardroom is not ignorant to cyber security as four of the top ten business risks are IT related. The problem has always been that the IT manager needed to start articulating the risks and that the risks needed to be added to the disaster planning and business continuity planning just as other plans are done for things like natural disasters.

Albert Daniels asked: What is the state of the Barbados landscape in relation to the use of DNSSEC technology and the extent by which DNSSEC has been deployed by the ISPs; whether they are passing DNSSEC traffic and whether they are aware that DNSSEC can make online transactions more secure? To what extent at the board or the executive level is there awareness of the need to secure the DNS layer with technologies such as DNSSEC?

Brian White responded: In relation to DNSSEC as a secure mechanism for DNS, ISPs that operate in the Caribbean are led by major global companies that enforce what they should do at that level and the use of DNSSEC is not based on what the Barbados ISP wants to do unless it is a local company.

Albert Daniels asked: Shouldn't there be a greater push from society such as business owners, business executives and so on who want more security when they do online transactions to insist that ISPs employ technologies like DNSSEC?

Brian White responded: It is a matter of education. He highlighted the fact that the average person is not aware of the technical terms and it is up to those that know to educate others about these mechanisms that can be used to protect themselves.

Mariette Simmons responded: There is a need to rely heavily on an active IT department to educate board officials as they may not be aware of all the IT related issues. The larger companies may have this because it is regulated or it is mandatory but they do not take these things seriously. Companies may have business continuity plans because auditors say that they must have it but they are not being utilized frequently nor are they part of an overall company policy and employees are not aware. There is a need to change this mindset. Some IT departments do not have time to deal with real breaches as they are busy dealing with day-to-day IT business related activities. For example, companies do audits but there are no IT audits carried out. Business leaders are not fully aware of the extent of what can happen to them in relation to cybercrime.

Philip Lewis President of the Barbados ICT Professionals Association commented that one of the real challenges is the legislation gaps that impacts on the ease of doing business and impacts on cyber security and it is a national issue. Awareness is also another major challenge as one can fix the legislative gaps but that does not mean that anything would change. The IT community has been doing a decent job in outreach but it is not enough. There needs to be greater awareness so that lawmakers realize how serious this is and enact the laws. The game needs to be stepped up and the profile of IT raised in Barbados. There is a need coming out of the forum to sit down and create a strategy to build an awareness campaign and identify the money necessary to facilitate such.

Rodney Taylor commented that there is \$2.5 million dollars in funding available to do what Philip Lewis was suggesting (awareness building, capacity building) provided by the OAS.

Charles Walton, online participant commented: The lack of reporting has not been mentioned before as point of concern by the Royal Barbados Police Force.

Alison James commented: A unified approach is definitely necessary and one aspect that needs to be considered is the perception gaps between users of IT including generational gaps (younger generation) and those at the board management level.

Brian Linton commented: We could look at the United States campaign Stop, Think, Connect as a possible model for sensitization but the question is who pays for it?

ISOC Virtual Town Hall on Cyber-security

Moderator: Shernon Osepa

Panelists: David Gittens (Barbados); Joel Mitchell (Trinidad & Tobago); Max Larson (Haiti); Cesar Moline (Dominican Republic)

The virtual town hall on cyber-security was held with panelists from various parts of the region including Trinidad and Tobago, Haiti and the Dominican Republic. The objectives of this panel were:

- To discuss the cyber security threats
- To explore ways of resolving the challenges
- To achieve concrete actions that focus on how the various players can help solve the issue

Shernon Osepa indicated that while the audience received a local perspective on cybersecurity challenges in the previous session, the virtual town hall gave participants the opportunity to hear from those from around the Caribbean. Mr. Osepa made the point that the internet goes beyond applications such as Facebook and encouraged participants to look beyond applications when focusing on cyber security. He stated that internet governance was about having the necessary telecommunications infrastructure, followed by having all the protocols in place. Mr. Osepa invited panelists to provide a better understanding of threats faced in the region.

David Gittens stated that there was very good telecommunications infrastructure and high level of internet penetration and usage in Barbados. The threats being seen were the same threats seen in the US - phishing, identity theft, ransomware. He did admit that we are only seeing a small number of cases being reported and believed that there were several more cases that went unreported.

Joel Mitchell agreed with David and said that Trinidad and Tobago (T&T) is seeing similar issues to the global threats. Like Barbados most individuals in T&T have at least one device with others having at least two. He revealed that many young people were downloading several applications without knowing the implications and this potentially exposed them to some risk. The situation in Trinidad is such that there is no local legislation to mitigate against these threats.

Cesar Moline said the situation in the Dominican Republic (DR) was interesting as they were seeing a lot of the same tendencies as larger countries and these issues were on the same scale in the DR in relation to a lot of data breaches and content related offences such as intellectual property theft and child pornography. Regarding unauthorized access, though there have been reported instances it is not a major issue at present for the country.

Max Larson echoed the sentiments of the other panelists noting that there was no difference between what was happening in the region and what was being seen in Haiti. Likewise, it is the same as what was occurring globally. One major development in the country is the rollout of fibre-to-the-home which has come with the

negative effect of ransomware, phishing, scams and predators targeting children. There have been some efforts in relation to drafting legislation and crafting a legal framework.

Shernon Osepa asked: With the advent of the Internet of Things what could be done to protect infrastructure with all the devices connected. He pointed out that when one connects to the internet you become part of the global network.

David Gittens responded: The issue is the ease of access to technology even though they may be expensive, as persons will still purchase the devices. The challenge was that the majority of devices were being brought in from North America. While North America might be able to monitor such devices in Barbados those mechanisms were not in place. It was recognized that there is a need not just for greater legislation but also regulations and policies. Users must use their devices within some policy framework and monitoring to ensure that persons are doing what they are supposed to. The problem is that Barbados does not have the infrastructure in terms of regulation, laws and the actual policies and overall awareness.

Joel Mitchell responded: In T&T it was also easy to gain devices and there are a lot of young people and citizens in general connecting to the internet. Such persons are downloading apps from various sources all of which are not credible. The above proved a major challenge for the country and thus regulation. Awareness and training for proper use of the internet was seen as a necessity.

Cesar Moline responded: There is a proliferation of devices in the DR. The law states that persons who import such devices should register them with the regulator but a lot of devices do go unreported. The country has also developed policy for safeguarding devices and the networks. One initiative that the government supported is a cyber-green initiative developed by the government of Japan which is a house check for your network and the country's network in relation to what systems are online and what threats exists for the house, the community, the country and other countries.

Max Larson responded: The problem is not so much in relation to devices as there are many devices in every country. He called for a collective response and responsibility by governments, network operators, and such groups present at the forum. The Internet is accessible which is a good thing but the global nature means that it can also be used for bad things and by the ill-intentioned such as hackers who exploit vulnerabilities. He called for a global response which is multi-stakeholder and cross national to ensure the end user knows about the implications of buying a device.

Mr. Osepa asked about the cyber security themes/challenges. Without telecommunications the internet can't work but there has been Internet development without any built-in security mechanisms in telecommunications. A lot can be said about the telecommunications infrastructure in Barbados; but it is important to secure the telecommunications infrastructure and secure the internet itself. It is necessary to secure the names and the route, the computer, the applications, data, identity and essential services. A question was posed to the panel as to who, in their view, were the major players.

David Gittens responded: The players included government which had partnered with many local and regional organisations to help with capacity building and training, other organisations also included the commonwealth and CTU.

Cesar Moline responded: In DR the players included the EU, OAS, IDB etc. There was a challenge in relation to duplication of efforts by funding agencies. An approach was taken to let different organisations deal with different issues; for example, the OAS deals with cyber security.

Question and Comment Segment

Matters of ethics in relation to cyber security issues were raised in the discussion and thus the question was asked how could these be included in teaching cyber security.

David Gittens responded: The cyber world is a reflection of the physical world, if something is wrong in the physical world it is the same in the cyber world. So it is about using the normal ethics in the physical world to guide actions in the cyber world.

The Internet & Activism – Democracy & Economics

Moderator: Jason Francis (ISOC BB)

Panelists: Dr Pearson Broome (UWI Cave Hill); Jeremy Stephen (UWI Cave Hill); Krystle Howell (Institute of Internal Auditors Barbados Chapter); Patrick ‘Salt’ Bellamy (SLAM 101.1 FM); Krystle Hoyte

Dr. Pearson Brome examined notions of democracy and the internet. He began his presentation by positing that everyone is on social media and alluding to a paper he co-authored on why internet activism has not taken off in Barbados as in other countries. Dr. Broome suggested that Caribbean people are quite laid back in their thinking about democracy. With respect to how internet applications were being utilized, it seems that entertainment was the primary purpose. However, technology can allow for mass participation and breaks the strangle hold of the traditional media. It has allowed for greater forms or participatory democracy and one cannot deny the fact that technology is here to stay. The main reasons why technology is not an integral player in the Caribbean in relation to activism are:

- There is no freedom of information legislation
- Libel and Slander legislation remain outdated and need to be revamped
- Access to data is limited
- The idea of digital literacy without civil literacy means citizens do not understand the general issues, which has led to a lot of misinformation and people being easily manipulated
- There is no one leading the charge to advocate the choice that the public wants
- Technology decentralizes knowledge
- There is no protocol or order online as in face to face interaction
- There is no real formulation of ideas in a coherent way
- Apathy often collides with pluralist ignorance

The presentation concluded with the point that Barbadians have not adequately articulated what type of government they wanted to see.

Jeremy Stephens gave a background as to why he chose the Internet as a platform. The reason given was that he was speaking through traditional media for a number of years but did not feel that it was effective in its reach and thus started to use the Facebook Live platform when that became available. He went on to state that as a UWI Economics student one was taught that Singapore and Barbados were on an even playing field at the start of the two countries' development and the resources the two countries had; though it could be argued that Singapore started off a little harder. However, after visiting Singapore and seeing its development and knowing its history compared to Barbados, Mr. Stephen was not pleased with what he saw occurring in Barbados and thought that it was not enough. He felt that the country could do better.

His online activism was about speaking to persons that the newspapers didn't care about as there is a gap between university graduates and those being impacted on the ground. The main advantage of having an open internet or net neutrality is about making it easy to educate people. There is a correlation of the growth opportunities provided by the internet and an economy.

Krystle Howell started her online activism as a result of an Auditor General's report. She felt at the time that the information was circulating between persons who already knew about it such as the accounting firms and the like. The information in the report was discussed at various professional forums but it did not go beyond these meetings. She saw technology being used to promote other ventures in Barbados such as food and clothing sales and figured that she could also use the technology to educate Barbadians so that they could make an informed decision when it came to voting and not based on what party might have helped the individual in the past.

Mr. Patrick Bellamy admitted that he was not a fan of internet activism as it is often like preaching to the choir. However, he was happy about the fact that the choir is growing. The challenge with the Internet was in distinguishing what is reality and what is fake. The Internet has allowed persons to have a platform or soapbox and he had become very weary that everyone has this soapbox. However, he admitted that he did see the need for transition from getting news from traditional media to other sources. What he called for was a move from activism to action.

Krystal Hoyte spoke on the topic from the perspective of a young person being only 18 years old and queried where young people fit into all this. She was of the view that young people beat everyone on the use of the Internet but stated that it was mainly used for social media purposes as young people did not always realize the full potential of the Internet as a platform. Young people were not engaging in activism as much as one would hope. When persons talk about young people, especially in the media, they are not portrayed in a positive light. Young people are disheartened about politics as there are issues of transparency. They don't feel as though they are being heard. Young people make comments on social media everyday yet there is a disconnect as they are not being taken seriously.

Question and Comment Segment

Lisa Evanson asked: How do we in the region avoid a similar crackdown on live streaming as is currently occurring in European countries and the USA?

Jeremy Stephen responded: Legislation exists that can crack down on these things if it is seen as necessary. Barbados is no different than American and the UK. We aren't the center of activity. We depend on other regimes for censorship. For the above reason he was a proponent of blockchain technology that can make us independent as currently we have no control.

Krystle Howell responded: The Caribbean need not be fearful of what the other countries were doing as they are looking after their own interests. What we needed to do in the region is to focus on what we in the Caribbean want?

Ashell Forde asked: What moved Ms. Howell to bring the auditor general report to the average Barbadian, how was it received and was she surprised by how it was received?

Krystle Howell responded: Not many persons were aware of the findings of the auditor general's report and those who were aware were not engaging the public on the findings. For this reason she wanted to make sure that others understood how critical the report was. She was initially hesitant as she did not have much of an

online presence; but she was however surprised by the success of the video which has received over 40,000 views. She is hoping to bring about change and let persons know that they do have a voice.

Dr. Pearson Broome asked: What exactly were the activists on the panel seeking to change? What are the major issues that one needs to address and what are the alternatives? After activism what are you changing from and changing to?

The moderator asked Ms. Krystal Hoyte and Mr. Patrick Bellamy if they thought that those in power were taking internet activist and young people seriously. The response from Ms Hoyte was a resounding no, that policymakers were not taking young people seriously as significant policies that impacted young people they did not have a say in.

Mr. Patrick Bellamy indicated that persons were not taking internet activists seriously; but it is a reflection of what is going on in society. Internet activists can be taken more seriously once people start to see changes being made and results.

Jeremy Jones commended Jeremy Stephens and Krystle Howell as they are able to break down complex concepts so that the average person can understand. He also indicated that they could consider partnering with organisations such as the Internet Society Barbados Chapter to increase their reach and effectiveness.

David Smith highlighted that even local politicians have taken to Facebook to put out their own ideas so it is a reflection of the work and effectiveness of the internet activists.

Jeremy Stephen commented that internet activists do have an impact but it depends where you hit. He opined that matters are unfortunately personalized as opposed to intellectualized in Barbados. If young people want to be internet activists that effect change in Barbados it calls for organization. The important thing is persistence.

Dr. Broome stated that activism must have an end goal in mind. Throughout history persons were agitating to bring about change and a better place. He queried whether Barbadian internet activists were agitating for larger economic issues or for just lower taxes. Are they agitating for more space for young people to participate or just for them to be heard? There must therefore be a clear purpose of activism including thinking of what change the activists want to see and a strategy for bringing about such change.

Krystal Hoyte concluded by noting there was too much tokenism when it came to young people. Dr. Broome ended his commentary by encouraging Barbadians to think more critically in order to make more informed decisions. Krystle Howell concluded that it is not only one person that can bring about change, it is also import to influence others. She also encouraged other activists to ensure that the information they were putting out was valid.

The Internet & Activism – Gender & Harassment

Moderator: Nalita Gajadhar (Bureau of Gender Affairs, Government of Barbados)

Panelists: Ronelle King (Life in Leggings); Corey Sandiford (Researcher); Lennox Rochester (Psychiatric Hospital); Tonni Ann Brober Hemans (UN Women); Patrice Daniels (Supreme Counselling for Personal Development)

Patrice Daniels commenced her presentation by saying that what stood out about the mission of ISOC was that the Internet is for everyone which makes it a safe and accessible space. For her the Internet is an essential part of life and the separation between online and offline has become very blurred. She noted that persons

were treated differently online based on the image they present. Ms. Daniels also argued that most online harassment specifically on gender is towards women and that men and women are harassed differently online.

Tonni Ann Brodber in her presentation said that the Internet is a reflection of real life and that has an impact on gender issues. There is not a lot of data in the Caribbean on gender and online harassment but there is a lot of anecdotal evidence. The Internet has been powerful in people sharing their stories. 73% of all adults experience harassment online most of that figure are young people and young women. When you disagree with someone in person there are laws that govern how that disagreement plays out in the real world. There are two countries in the Caribbean that have passed cyber legislation but still those laws did not take into account the sexual harassment men and women face online. We can disagree and still love each other. When the disagreement happens on the Internet, the immediate response is oppression.

Ronelle King explained how her experiences led to her involvement in online activism. She noted that she was harassed but it was not taken seriously by the police and thus she decided to make a post on the Internet. After seeing similar posts, she decided to do something about it and create a space for such experiences. The response shows how the Internet has a role in activism as others then created similar groups in the Caribbean. If you go somewhere and you are not being taken seriously then you can do something about it.

For Corey Sandiford the Life in Leggings hashtag started by Ronelle King revealed many issues. One of the most glaring issues for him however was the cultural disconnect between men and women. The male responses can be divided into three categories:

- #eggplant entries which tried to counter the #lifeinleggings narrative and place the spotlight on men who shared their personal stories of how they were harassed by women
- men who questioned whether women's accounts were accurate
- men who expressed shock and outrage about the experiences being shared by women

The life in leggings hashtag created a safe space for women to share their stories. It is not in our nature to think about who the space was meant for. There is also a need for a space for men to deal with men and their issues and masculinity. However, it is up to men to create that space and not to attempt to quiet the voice of women.

Lennox Rochester in his remarks said that there were a multiplicity of people using the internet with various personalities but this is not obvious on the internet. People use the internet for varying needs but one cannot be sure that these needs will be met. People need to consider the emotional fall out of using the internet. Mr. Rochester sees a lot of young people who are psychologically scarred and have gone through issues of bullying and betrayal.

Question and Comment Segment

Ashell Forde commented: The response of men to the life-in-leggings movement suggested that men are only inspired to stand up for themselves and their issues in response to what women are doing. She wanted to hear Mr. Sandiford's thoughts on men creating their own spaces to discuss their issues and educate men about how traditional gender roles hurt men as well.

Corey responded by saying there was a thread started between men due to the life-in-leggings hashtag. However, the discussion died down after a while. Men do not have a sense of urgency until something

happens and it's forgotten again. He was still working out what a space for men should look like as there is a challenge with what the male response would be. If someone created a space, would men actually participate and what would one do in that space? As a society we do not know what the survivors voice should look like and what the male response should look like.

Lennox Rochester added that men are misunderstood and men do have emotions but they need a safe space to meet and talk about men's issues. Men are very aware of being judge and in our society there is a thinking that men who talk about their issues are weak men. But men want to be heard and for people to recognize what they are going through. Men are not in crisis but they do need help in understanding who they are.

Jason Hynds asked: Is it okay for men to share a life-in-leggings post or post things using the hashtag #lifeinleggings?

Corey Sandiford responded: One can share and tweet but it is important who the focus is for, which is women and not male issues.

Ronelle King responded: It is easy to share your experiences and see what others shared. However, now when one clicks the hashtag one sees a lot of male responses and not experiences from women, who had taken a step back for a while. Let the women have a say on the hashtag and one can share but do not use the hashtag to share your experiences as men.

Patrice Daniel responded: The harassment experienced by women is heightened compared to that experienced by men. It is an important space for women to have their voices heard. It is not the time to jump in when women are speaking about their harassment.

Charles Walton, online participant commented: Men will share in a space where they can express themselves without their emotions being seen or judged so an online forum is better suited to discuss men's issues.

Tonni Brodber called for men and women to support one another. So if there was a space for persons to share their harassment that is what was needed.

Rosemarie Price queried whether panelist Corey Sandiford saw the life in leggings movement as a direct attack on men.

Corey responded: There were some comments by men supporting such a perspective, however he has matured pass this point where he sees women speaking about their experiences as trampling on men. Lennox Rochester also did not see it as an attack on men but cautioned that we need to be more sensitive to one another.

Pearson Brome asked: How are we addressing such issues as bashment music that supposedly promotes crass behavior and the degradation of women?

Corey Sandiford responded: In terms of the issues there are many people working as activists. Music is a reflection of what happens in Barbados and therefore if one works on the gender issues in Barbados it would have an effect on the music in Barbados.

Tonni Brodber responded: Music is a reflection of what is happening and it can influence behavior. The UN Women office has worked with artists in that regard; but it is not only the media that is the problem and how we strategically deal with the issue is important. The fire from life in leggings needs to be taken to the street.

Moderator Nalita Gajadhar interjected that we select the songs that we want to promote and that change was not possible unless people see that the songs objectify everyone in the same way.

Curtis Padmore commented: Technology can be used to help with sexual harassment language online as there were apps that allowed people to identify that type of language.

Lennox Rotchester closed by saying as a people we need to change our bipolar approach in how we deal with each other. We perpetuate things in Barbados as part of our culture but there is a need to respect each other or nothing will change. Corey Sandiford commented that male behaviour creates a number of issues for women and a separate space for men and about male issues and gender issues in general is needed. Ronelle King concluded that a lot of women are not empowered to resist misogyny which presents itself as the cultural norm. We all have a role to play in eradicating gender based violence and harassment in virtual spaces. This can be done through educating ourselves and engaging in important discussions such as the panel.

Tonni Brodber said that part of the challenge of panels like this was that one doesn't get to the root cause of the issues in the time allotted. We must get to the root cause which is an issue of power. Research for men and women's issues need not to be separate as there is a need for both. Men who harass women on the streets are the ones who are most insecure. Our culture is interesting and one needs to think about respectability politics and how do issues integrate in the grey area. Patrice Daniel concluded by saying that internet is used very negatively in gender issues. However, there is the potential for it to be used for good as well. For example, the Walking into Walls space. This space takes into account what is happening in the region with respect to gender and what other agencies are doing.

Nalita added that the Bureau of Gender Affairs is interested in creating that safe space for men and urged more men to come forward to create such a space.

Supporting the Internet Economy

Moderator: David Smith (ISOC BB)

Panelists: Hanseley Straughn (E-Government Unit); Sonia Mahon (UWI Cave Hill); Adrian Reid (LegaciGlobal); Andrew Dixon

The moderator started the discussion by explaining that the panel would be focused on issues surrounding the internet economy. He posed a series of questions both to the panel and the audience:

- Is the internet economy a realistic driver for economic growth?
- Beyond legislation what do you see as factors hindering the vibrant growth of the internet economy?
- How can we overcome these factors?
- What can each organisation and stakeholder do to contribute both individually and together to tackle the constraints and build an internet economy?
- What are the next steps?

Adrian Reid started the discussion by saying that his company looks at social and economic challenges and tries to build business models around those problems. He alluded to the fact that three years ago his organisation looked at access to finance for entrepreneurs. He used crowd funding as his example to highlight the internet economy. In those three years he has been able to view the challenge from two lenses; the people issue and the infrastructural issue. He noted that the challenge that the human element brings to the table is sometimes overlooked. He also explained that people are often resistant and lacking in knowledge when it comes to the internet and ecommerce for business. The challenge is that even if the legislation gaps are filled and persons still have that lack of knowledge in engaging services using the Internet, one is still at the same

place. His company had to invest a lot in educating people on how to use the Internet and the issues with business and the Internet.

Hanseley Straughn provided context to the discussion by examining where we are and where we came from. The 1990s saw the liberalization of the telecom sector and we have one of the most robust telecoms infrastructure in the region. The year 2006 saw the first e-government strategy which looked inward in trying to strengthen internal systems and tried to put measures in place for cost savings. The e-government department has tried to put measures in place for costs savings and have been able to achieve 80% of the objectives in the last 10 years. Last year the government implemented a wide area network afforded by monies from the EU and the Human Resource Development project. The aforementioned allowed government to have a state of the art high speed network connecting the majority of government agencies. Another objective was to look at the whole governance framework and that was a challenge. He indicated that ICT was splintered across the public service. A central agency for ICTs is an area to look at going forward. The new e-governance strategy started last year and the focus is citizen centric which is about getting more information to citizens. The biggest challenge for his department is not the technology but the people and the process.

Sonia Mahon provided the disclaimer that though she was on the panel as a representative of University of the West Indies (UWI) her remarks were not binding to UWI as they were personal observations over the years. She also congratulated the organisers of the conference as it was timely. She said that people will be hearing about UWI's new strategic plan called the Triple 'A'. The "As" stand for alignment, access and agility. This is a result of the organization recognizing the need to become more responsive, relevant and engaging with the public.

Ms. Mahon noted it is becoming increasingly difficult for the university, which is a public institution in a private sphere, to balance its roles and responsibilities. The university was challenged by its most senior official to be responsible for building its own economic competitiveness and to keep the house in good working order to become re-energized and re-engaged. Universities are evolving to offering research to the public. UWI will be getting better at disseminating information/findings of their research. The university remains committed to improving the lives of the people in the region. Their business is education and retooling will become just as important as the new technologies and the way one engages with the technology that come on stream. It is about the university repositioning its people to take advantage of the new technology that comes on board. How does the university move persons from consumers to producers? How do you develop goods and services that are non-duplicable and allow for competitiveness?

Andrew Dixon indicated that his company is embarking on their digital strategy where they are bringing together all the projects that they are working on across the globe. In Barbados there is a struggle with implementation or launching their products that allow for experimentation as the laws do not allow for it. What the company has done is to build up their capabilities as they were allowed to do other projects in other islands.

The moderator asked the panelists if they thought that it was realistic for Barbados to develop a digital sector that is an engine for economic growth. The answer was a resounding yes.

Sonia Mahon said that one challenge is that we need to re-educate the populace that the platform is not just for the academically inclined. For example, she is seeing the issues in mathematics and science in relation to the understanding by children but it is about how the information is being delivered.

Question and Comment Segment

Hallam Hope asked: Is there is a plan in place to develop a digital sector and do the leaders know what path are they on? He felt in relation to the question posed by the moderator that the answer is yes, we can but no, we are not going there.

Hanseley Straughn responded: Government is still paper centric. Some challenges are as a result of leadership, not only at the top but at all levels. Another major hurdle is legislation. An area where improvements can be made is in consumer online payments.

Philip Jackson asked: If you were to suggest a sector that was right for experimentation for the use and adoption of technology what would it be? Jackson noted that we needed to help people reimagine themselves as producers and not consumers.

Adrian Reid responded: The creative industries is the sector ripe for experimentation as the products are readily able to transfer into digital form for streaming and downloading. There is no lack of creativity from the Caribbean for example the music industry. When considering development, we forget to bear in mind that the developing countries have some unique experiences in terms of infrastructure and history.

Sonia Mahon responded: Another industry that is ripe for experimentation is education. For example the company Aries Technology which is building technology that is very relevant. Part of the vision of the UWI for the next five years is access education and blended learning. Information could be obtained via podcasts and then utilized via an active user interface. The Caribbean is still ranked very high in the area of development of education, we just need to find a way to package education and change how it is delivered.

Andrew Dixon agreed with Sonia that the education sector was ripe for experimentation. He called for a relook at the Edutech project in schools as the technological challenge no longer exists as before, which was the reason given for why Edutech failed.

Lisa Evanson commented: The country was looking at an attempt to reach parity with the developed world. She insisted that the countries that have done well are those that look beyond parity and questioned what Barbados has that can be developed to allow us to look beyond parity. She also suggested starting to look at the primary school level for a common shared vision.

Adrian Reid responded: Agriculture is such an area because the world has to eat and another area is energy. It is about food security and how do you power the world.

Melissa Richards, online participant asked: How would you say Barbados has progressed in connectivity particularly in the rural areas and how can this be mapped to the current connectivity plan that exists?

Hanseley Straughn responded: This was not an issue in the context of Barbados.

Jeremy Jones commented: With respect to having a lot of infrastructure in place ICT was always seen as an afterthought so there is a need to have a specific government Minister responsible for ICT. Most countries have a CIO. Jamaica also had a minister of ICT.

Sonia Mahon responded: Even though the infrastructure is there, there are some that cannot access the infrastructure as it was not accessible to all. One needs to ensure that the digital divide does not divide the classes.

Charles Walton, online participant commented: The absence of vision by the government hinders development. He called for IT organisations to come together and agitate for the government leadership necessary to move

us. He also asked each panelist to state two things that participants could take back to their individual groupings.

Adrian Reid responded: What is important is ongoing education at all levels not only school level but the public about what is possible, what is available, what the vision is and what needs to happen in order to get it there. To take the discourse of the forum to the public and agitate the public and government to move on the pressing issues that need to be addressed. A targeted public campaign needs to occur.

Haseley Straughn asked for a paradigm shift in how we do things, where ICTs becomes part and parcel of the country's development model. We need to do a better job of convincing the decision makers of the importance of ICT, better dialogue, understanding the importance of leveraging ICT which can lead to growth.

Sonia Mahon noted that UWI is finding ways to reorganize the way it offers its products and services to communities and finding ways to commercialise research. She also called for stronger partnerships between industry and academia towards ensuring a work ready force at the end of their tenure at UWI.

Andrew Dixon felt that participants needed to be a part of the solution. One needs to look at what is the biggest challenge and ask how can a student be part of the solution and use them to solve the problems.

Open Forum

Mr. Dev Gosine represented the Trinidad & Tobago Multi-stakeholder Advisory Group and outlined its benefits to Trinidad and Tobago. It was set up approximately four years and touches all areas of persons involved in ICTs. They meet monthly and present on various issues including cyber security.

Kevon Swift from LACNIC commended the steering committee for putting on the event and asked if they had in mind a way of addressing this very complex issue of the internet and internet governance. Is there an idea of who are the theme leaders and what are the opportunities to leverage Caribbean networks?

Rodney Taylor responded: We are working to build our own multi stakeholder community in Barbados and trying to figure out what that should look like. ISOC BB sees themselves as aptly positioned to be the organising body due to having the support of the global ISOC body. Which persons/organization takes the lead should be decided by the multi stakeholder community.

The idea of forming a possible e-council was mentioned which is representative of all stakeholder groups that speak to their membership and government to ensure progression and action and just not talk about the challenges. There is a need for other groups besides IT groups in this setting to get issues presented from all stakeholders.

Kevon Swift spoke from the perspective of a Caribbean internet end user and indicated that he is willing to help especially in the area of coordination.

A university graduate stated that she was happy to be a part of the forum and asked how can she be a part of the Internet Society and play a role?

David told all present to log on to www.isoc.org and sign up, registration and membership is absolutely free. No one would be turned away as membership needs to go beyond IT persons. The organization does quite a bit on campus as it is the place where remote hubs happen; students and staff are invited to come and participate but the organization needs to do more to publicise it to students through the ISOC website.

Ashell Forde noted that help was definitely needed as it took a lot of time and effort to execute ideas and plan events.

Melissa Richards commended the organisers on timeliness of the sessions.

Gregory Skeete congratulated ISOC BB on a job well done in hosting the event and asked if there are any insurance companies in Barbados/Caribbean which provide coverage for online businesses/assets.

Lisa asked when will ISOC BB or other professional organisations ask for a seat at the social partnership table and help develop the country. In her response to Gregory Skeete she asked if the insurance companies know how to cover online business? This created a need for the two technical bodies to come together.

David Smith suggested that the ICT professional association was the best association for representation at the social partnership. He agreed on the need for collaboration for an umbrella body that allows all stakeholders to come together to work on the betterment of ICTs.

Curtis Padmore indicated that there are some ICT tools that we can utilize to help assist in our issues as a nation. For example, replacing Microsoft Office with another software that might be cheaper. He also said that government should make it easier to build applications to assist government in providing greater access to their services. Access to artificial intelligence is also important as a lot of what people do can be automated to reduce expenditure. Technology is about doing more with less.

Lisa suggested that the main themes coming from the forum over the last two days were policy, legislation and regulation. Legislation is the sole shackle that is holding back the explosion.

Ashell Forde agreed by saying that Barbados does not have an environment that allows a 17-year-old to develop the next big app due to the legislative framework.

Deon Olton posited that two things that need to be talked about are:

1. Public awareness which needs to be driven at all levels. His organization had a campaign back in 2013 that could not continue due to lack of funding.
2. Synchronization of efforts, as the fastest way to deal with protecting Barbados is not by legislation.

There is no national cyber security policy for Barbados. He called for the development of the actual road map that will allow us to be where we need to be. The best practice should be our next practice. People need to be bold and take a chance. If you sit in your comfort zone nothing would be done. Look at the needs of the staff and tailor the delivery to suit. We must find out where we are and envision where we want to be and do a gap analysis.

Curtis Padmore provided a tip for app developers by pointing out that the cultural industries bill allowed for investors into the industry to get a tax break and there is no cap on to the amount that one can invest into the industry.

APPENDICES

Appendix I – Acronyms

ARIN	American Registry for Internet Numbers
CIRT	Computer Incident Response Team
CTU	Caribbean Telecommunications Unit
DPP	Director of Public Prosecutions
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
ICTs	Information and Communication Technologies
IETF	Internet Engineering Task Force
IG	Internet Governance
IGF	Internet Governance Forum
ISOC	Internet Society
ISOC BB	Internet Society Barbados Chapter
ISSA	Information Systems Security Association
LACNIC	Latin America and Caribbean Network Information Centre
NRO	Number Resource Organisation
OAS	Organisation of American States
RIRs	Regional Internet Registries
UWI	University of the West Indies

Appendix II – Video Recordings

Video recording of all sessions can be found at <https://livestream.com/internetsociety/igfbb>.