

**SECTORAL DEBATE PRESENTATION**  
**BY JULIAN ROBINSON**  
**OPPOSITION SPOKESMAN ON SCIENCE AND TECHNOLOGY**  
**MAY 28, 2019**

Mr Speaker,

I start my presentation by giving thanks to the Almighty for continuing to bless me with health and strength to carry out my responsibilities in this House.

I am forever grateful to the constituents of South East St. Andrew who have sent me here to represent their interests. I will continue to do so with integrity and accountability.

The constituency has a dedicated team of workers led by Councillors Andrew Swaby and Kari Douglas, secretary Ivy Hill, organiser Sonia Forbes, CDF officer Andrew Geohagen and a host of others who give yeoman's service behind the scenes and in most cases unrecognised.

I want to thank our Party President and the Opposition Leader Dr. Peter Phillips for his continued guidance and support and my colleagues in the House and the Party.

Finally and by no means the least I wish to thank my family for always having my back.

Mr. Speaker

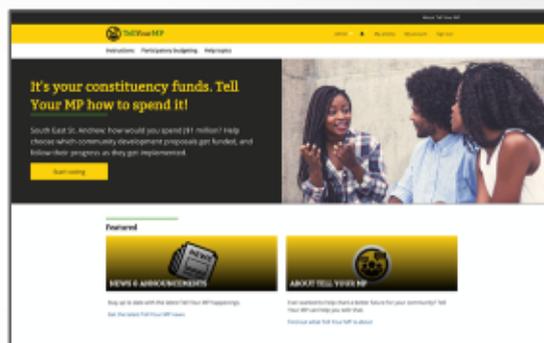
I intend to spend a couple of minutes providing an update on an initiative I launched last year to increase participation in our democratic process at the constituency level.

In collaboration with the Slash Roots Foundation, I launched a website and an app named [tellyourMP.com.jm](http://tellyourMP.com.jm) as a way of getting more of my constituents to make recommendations about the types of projects they wish to see implemented in their constituency.

**Tell Your MP** augments the role of CDF consultation meetings to increase the opportunities for constituents to influence how money is spent on development projects in their communities.

The Tell Your MP programme seeks to:

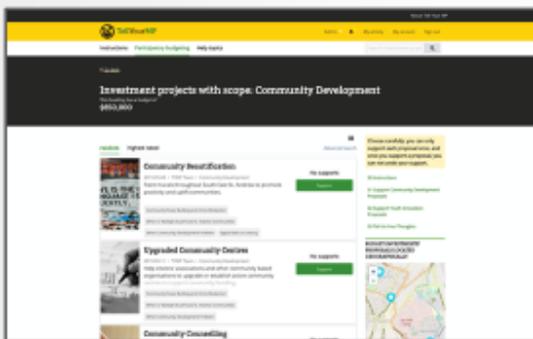
- Broaden citizen engagement and understanding of the CDF process.
- Improve quantity and quality of constituent participation in the CDF process.
- Develop a toolkit for improving citizen participation using digital channels (social media, website, app).



Tell Your MP consists of 3 major phases:

- **Idea Submission**—48 ideas for community projects collected October 25, 2018 - January 31, 2019 via [tellyourmp.com.jm](http://tellyourmp.com.jm). Organisations actively engaged include youth, blind, D/deaf groups.
- **Voting**—At community meetings and via [tellyourmp.com.jm](http://tellyourmp.com.jm) May 15 - June 28. Ten Community Development proposals and 7 Youth Innovation proposals shortlisted; up to J\$1 million earmarked to fund most popular proposals.
- **Monitoring**—After voting, top Youth Innovation proposals will be awarded grants; top Community Development proposals will be packaged for Parliamentary approval and implementation. Project updates will be posted on [tellyourmp.com.jm](http://tellyourmp.com.jm).

The proposals citizens are currently voting on include:



- Improving community life through learning assessment programmes, sign language classes, counselling, volunteerism, seniors' clubs or small business expos
- Community beautification to promote positivity and proper garbage disposal
- Support community infrastructure with security cameras or community centre upgrade workshops
- Building apps, systems, websites, digital skills training programmes to create employment opportunities, aid studying and communication, or enhance safety.

Mr Speaker, my presentation will focus on 6 main areas

1. The state of the Ministry of Science, Energy and Technology
2. How we can incentivise innovations in science and technology
3. Plotting the future of the Universal Service Fund
4. The best utilization of resources for our tech entrepreneurs
5. Our cyber security arrangements
6. Advancing digital literacy

### **A LOST YEAR AT THE MINISTRY OF SCIENCE, ENERGY AND TECHNOLOGY**

Mr Speaker, the last year at the Ministry of Science, Energy and Technology can best be described as chaotic and where the practices of a number of key agencies under that portfolio have led to a loss of public trust and confidence.

The clear manifestations of the corruption, nepotism and cronyism continue to unfold on a weekly basis with new revelations of malpractices.

While these are very obvious and clear to the public, there is another side effect that is less obvious but equally as grave, and that is a number of critical projects and initiatives at the Ministry that have been at a stand still

Mr. Speaker, I would regard the last year of MSET's operations as a LOST YEAR.

1. **The Data Protection Bill** was placed before a Joint Select Committee in November 2017. It had a number of meetings and received submissions from external stakeholders. The last meeting of that Committee was held on March 27, 2018 - over 1 year ago.

Why is the Data Protection Bill important?

The Bill seeks to define how individual personal data is to be treated, who will have access to it, the rights and obligations of the data owner.

Mr Speaker - we have LOST one year on this.

2. In 2015, the then Government established the **Office of the Chief Information Officer** to streamline the plethora of ICT projects and initiatives across the Ministries, Departments and Agencies. The last holder of that office, Dr. Louis Shallal finally demitted office September of last year. Prior to that, he was working part time. There has been no indication about the process to identify a replacement nor the status of work of the office.

Mr Speaker - we have LOST one year on this

### **3. Status of Open Data**

The Open Data Barometer, produced every two years by the World Wide Web Foundation ranks governments on:

- **Readiness:** How prepared are governments for open data initiatives? What policies are in place?
- **Implementation:** Are governments putting their commitments into practice through the publishing of accessible, timely, and open data in key categories?
- **Impact:** Is open government data being used in ways that bring practical benefit on business, politics, and civil society.

In the 4<sup>th</sup> edition of the Barometer, published in May 2017, Jamaica ranked 1<sup>st</sup> in the Caribbean and 40<sup>th</sup> globally out of 115 countries. To quote the authors of the report, at the time:

*“All together the components of the ODB assessment suggests that the demand-side opportunities and capacity to realize social and economic value from open data are considerable for Jamaica, but are not matched by commensurate commitment and action on the part of the government in terms of appropriate initiatives and policies”*

Since then, the Government’s Open Data program has been at a standstill. We have an Open Data portal, launched with great fanfare in 2015, which has become almost useless because the data is not being updated. An Open Data policy has been in draft state for the past 3 years. We have ceded leadership in this domain to other countries in the region, notably, Saint Lucia which became the first Caribbean country to have an open data policy that embraces the “open by default” principle... *and* we continue to ignore the value opportunity, which studies conducted by UWI in 2014 estimated that open data had the potential to contribute billions of dollars to the Jamaican economy through the education, tourism and agricultural sectors.

We can’t keep marking time and paying lip services to these critical areas of governance that have such enormous potential to increase the efficiency of public service delivery, and stimulate innovation and entrepreneurship.

Mr Speaker - we have LOST not just one year, but three years on this

#### **4. Review of the Cyber Crime Act**

Mr. Speaker – Built into the Cyber Crime Act is a mandatory review of the Act on the third anniversary of its passing. We completed the last set of amendments to the Act in December 2015. The review of the Act should have commenced in December 2018, over 6 months ago. Why is this important? The fast-changing nature of technology requires us to have legislation that keeps pace with these changes. In 2017 it was estimated that the country lost US\$100 Million to cyber-criminal activities. We need to give our security forces and prosecutors the tools to do her job. This is not even mentioned in the Minister’s presentation as a priority piece of legislation.

Mr. Speaker - when former Minister Andrew Wheatley resigned from the portfolio in July last year, we urged the Prime Minister to appoint someone who had the time and focus to drive the developments in the ministry. The Prime Minister decided to personally hold the portfolio for 7 months. The Ministry was virtually at a standstill during that time.

**Mr Speaker the country is paying the price of a night watchman going to the crease and not making any runs.**

I want to urge the Prime Minister not to make the same mistake twice. The Prime Minister is currently the Minister of Education. I urge him to appoint a full time Minister to oversee the affairs of educating our nation's children.

## **INCENTIVISING SCIENCE AND TECHNOLOGY INNOVATIONS**

In general, Science and Technology need to be seen as sources of solutions to problems both present and imminent. In order to improve the economic impact of scientific innovation, and how science is studied and taught, Government should be publicly setting the priorities for the science agenda by providing grant funds to solve the country's most important problems.

One way to do this is to frame and prioritise the problems and disburse grant funds to proposed solutions on a competitive basis. Winners of such funding should be required to disclose their findings (in the form of publications and/or public presentations) at the end of the study.

The problems to be addressed would be presented by Government in real terms (e.g. crime and violence, agricultural output, universal access to utilities, etc). A body would be responsible for framing the calls for proposals in ways that the scientific and engineering communities would be able to respond with research proposals.

It should be clear that the solutions to be produced are not overnight-- this is the nature of research. Successful (funded) research proposals would produce work that attempts to solve the problem.

Successful research produces either new knowledge (in the case of science) and/or new tools (in the case of engineering) that move us forward on the solution. So, the problems should be basic ones whose solutions align with our long-term vision for the country. Such an organised approach to stimulating scientific activity also improves the opportunities for local researchers to be able to access larger pools of internationally available funds, either through matched funding schemes, or the improved track record of our local scientists and engineers.

Example problems include:

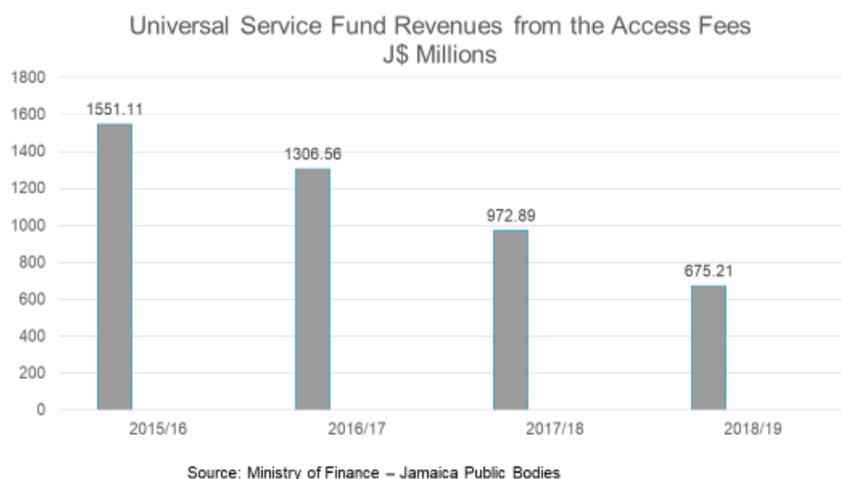
- Problems of coastline erosion and sea-level rise can pose serious problems for residences and industries on our shores. How can we prepare for it? Are new policies needed to guide future real-estate development? What about those already in threatened areas, are there innovative interventions that can mitigate the economic impact of their loss?

- How can we improve the yields of agricultural food production? How can we improve their resistance to diseases? Are there ways to mitigate against the inevitable agricultural loss after large storms (which are likely to become more frequent and stronger with the increasing global temperature)?

- Agricultural production is largely focused on food production. What are the prospects for higher value-added cultivation? For example, what opportunities are there for any of our medicinal plants forming the basis of a supply chain for pharmaceuticals and nutraceuticals.

- What are the economic opportunities for mining of materials other than bauxite and oil? What became of the prospect of mining for rare earth metals? Battery technology and miniaturised mechanical devices have placed premiums on the prices of elements (such as lithium and nickel used in batteries, and rare earth metals used in magnets) that affect the economics of mining them. Those are the minerals that we already know about because of extant demands, what other elements and minerals should we anticipate a demand for? Do we know what our natural stores are in those elements?

### **PLOTTING A FUTURE FOR THE UNIVERSAL SERVICE FUND**



Over the last four fiscal years, the revenues from the access fees that accrue to the Universal Service Fund have fallen by over 57% from J\$1.5 Billion in 2015/16 to \$675 Million in 2018/19. One implication of this fall is that the USF is not self-sustaining and operates on deficit financing – meaning it is spending more than it is earning. Even more alarming is that the declining revenues flowing into the fund threaten the very existence of the USF, and on the current trajectory, the revenues may totally dry up in another 5 years.

The telecommunications landscape has changed tremendously over the last fourteen years and this is just the reality that we need to contend with. With the introduction of 'free' internet-based communications platforms such as WhatsApp, telecommunication companies are seeing declining revenues for international calls terminating on local networks. This in turn means a decline in revenues for the Universal Service Fund, a trend which is likely to continue.

We are therefore calling for the urgent establishment of a Task Force to examine the future of the Universal Service Fund and present answers to some pertinent questions that have arisen. Specifically, we would like the following five (5) questions to be answered:

- 1. What has been the impact of the USF compared against the strategic objectives for which it was created?*
- 2. In what ways have the ICT needs of the current population changed over the last 14 years and is the USF the best vehicle through which those needs will be met?*
- 3. Does the focus of the USF need to change in order to reflect the current and future needs of the nation's underserved communities?*
- 4. Given the current income trajectory of the Fund, what are the revenue predictions for the next 5 years?*
- 5. What are the possible alternatives for revenue generation available to continue the viability of the Fund?*

The end result we are trying to arrive at is simple: we need to be able to make an informed determination around whether the purpose for which the USF was created has been met. If it has, then we need to ask ourselves whether the USF needs to exist in its current form or any at all, given it is likely to become a liability based on the context that has been painted.

### **THE BEST WAY TO SUPPORT OUR TECHNOLOGY ENTREPRENEURS**

Mr Speaker,

Minister Fayval Williams in her sectoral presentation indicated that \$200M would be allocated this year to support the work of technology entrepreneurs.

We support the broad thrust of providing funding support for this group and offer our recommendations on how the monies should be utilised.

We believe the best utilisation of the funds is to support entrepreneurs who are enrolled in an incubator or accelerator, where there is structured support, guidance and mentorship provided.

The facility does not have to be owned or managed by the Government.

The entrepreneur would apply for entry into the incubator and would be selected based on the solution being developed and the willingness of the entrepreneur to be coached.

Very specific timelines and milestones would be developed for each entrepreneur, who would get exposure to mentors who would advise on developing their businesses.

The objective would be to get the entrepreneur to the stage of a prototype that can then be pitched to angel investors or venture capitalists.

Disbursements would be based on the achievement of specific milestones.

## WHY THE SECRECY IN OUR CYBER SECURITY ARRANGEMENTS?

Mr. Speaker

In his last Sectoral Debate presentation on May 15, 2018, the then Minister of Science, Energy and Technology, Andrew Wheatley indicated that the Government of Jamaica was on the verge of signing an MOU with an Israeli company, Israeli Aerospace Industries for the establishment of a regional cyber academy. The then Minister said he would be bringing to Cabinet the following week, a submission to establish the academy.

Mr Speaker I tabled questions to the Prime Minister in November 2018 on this matter and the PM indicated that no MOU was signed and no academy established.

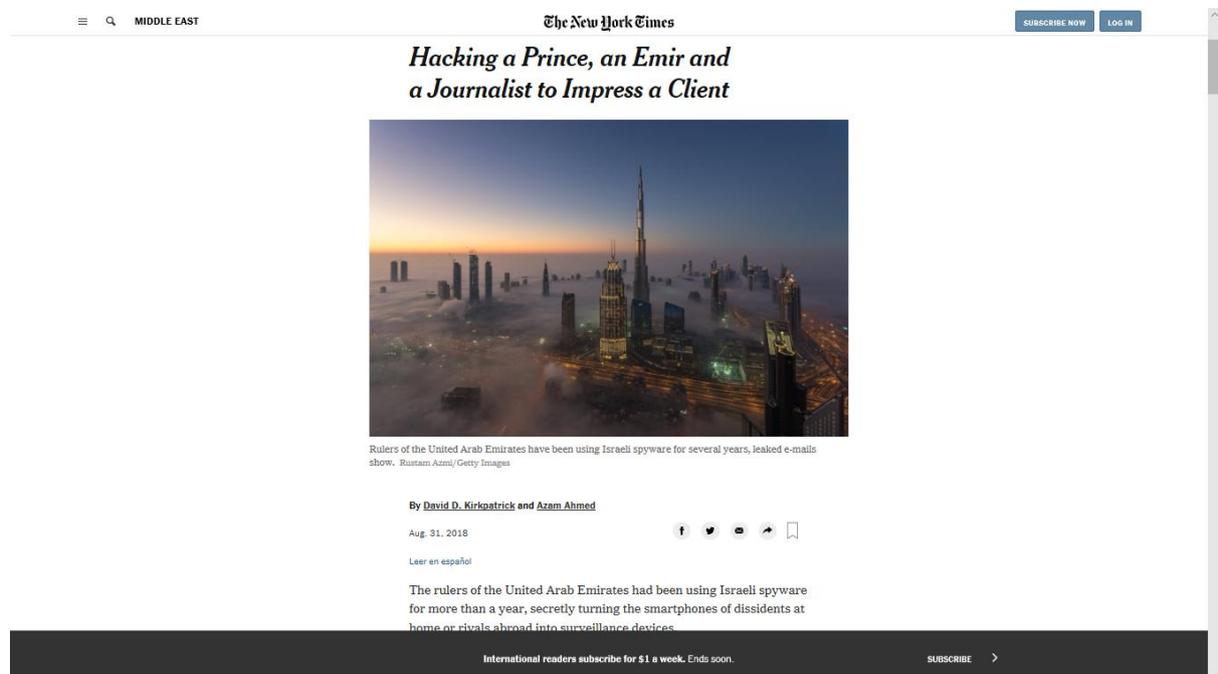
I further asked the PM, if the Jamaican Government has entered into any agreement or relationship with the Israeli government or an Israeli private sector firm in the area of cyber security. The PM said he would not answer that question.

Mr Speaker we have concerns about the secrecy surrounding the arrangements with the Israelis and the total lack of information around our cyber security arrangements.

These concerns are based on the following.

1. The history of corruption that has followed Israeli companies who provided cyber security tools and services to other countries
2. The misuse of these cyber security tools to spy on political opponents, the media, human rights activists

New York Times article – August 31, 2018



The screenshot shows the top portion of a New York Times article. At the top left, there is a search icon and the text 'MIDDLE EAST'. In the center, the New York Times logo is displayed. To the right, there are buttons for 'SUBSCRIBE NOW' and 'LOG IN'. The article title is 'Hacking a Prince, an Emir and a Journalist to Impress a Client'. Below the title is a photograph of a city skyline at dusk, featuring the Burj Khalifa. Underneath the photo, a short paragraph reads: 'Rulers of the United Arab Emirates have been using Israeli spyware for several years, leaked e-mails show. Rustam Azmi/Getty Images'. Below this, the authors are listed as 'By David D. Kirkpatrick and Azam Ahmed', followed by the date 'Aug. 31, 2018' and a 'Leer en español' link. A social media sharing bar is visible. At the bottom of the article preview, there is a dark banner with the text 'International readers subscribe for \$1 a week. Ends soon.' and a 'SUBSCRIBE' button with a right-pointing arrow.

As private companies develop and sell cutting-edge surveillance technology to governments for tens of millions of dollars, human rights groups say the scant oversight over the practice

invites [rampant misuse](#). And no company is more central to the battle than [the NSO Group](#), one of the best-known creators of [spyware that invades smartphones](#).

The two lawsuits, filed in Israel and Cyprus, were brought by a Qatari citizen and by Mexican journalists and activists who were all targeted by the company's spyware.

In Mexico, the NSO Group has sold the surveillance technology to the Mexican government on the explicit condition that it be [used only against criminals and terrorists](#). Yet some of the nation's most prominent human rights lawyers, journalists and anti-corruption activists [have been targeted instead](#). Many are now plaintiffs in the lawsuits.

The government of Panama also purchased the spyware, and the president at the time used it to spy on his political rivals and critics, according to court documents in a case there.

The Financial Times of May 13, 2019 article



The malicious code, developed by the secretive Israeli company NSO Group, could be transmitted even if users did not answer their phones, and the calls often disappeared from call logs, said the spyware dealer, who was recently briefed on the WhatsApp hack. NSO's flagship product is Pegasus, a program that can turn on a phone's microphone and camera, trawl through emails and messages and collect location data

"This attack has all the hallmarks of a private company known to work with governments to deliver spyware that reportedly takes over the functions of mobile phone operating

systems,” the company said. “We have briefed a number of human rights organisations to share the information we can, and to work with them to notify civil society.”

“NSO Group sells its products to governments who are known for outrageous human rights abuses, giving them the tools to track activists and critics. The attack on Amnesty International was the final straw,” said Danna Ingleton, deputy director of Amnesty Tech.

“The Israeli Ministry of Defence has ignored mounting evidence linking NSO Group to attacks on human rights defenders. As long as products like Pegasus are marketed without proper control and oversight, the rights and safety of Amnesty International’s staff and that of other activists, journalists and dissidents around the world is at risk.”

Mr. Speaker - none of us know whether the Jamaican government has partnered with an Israeli company to provide cyber security services but there are enough legitimate concerns about how these companies operate, that should prompt the Government of Jamaica to be open and transparent about these arrangements.

We do know that billions of dollars have been budgeted to support a cyber security initiative.

We do know that Israelis are here in Jamaica working closely with our security forces on a cyber security initiative.

Mr. Speaker - I know the argument will be that if we discuss it, the criminals will know. We are not asking for operational details but we must have assurances that the tools available to the Jamaican government are not being misused for political purposes.

Mr. Speaker – can the Government indicate whether Jamaica is a partner or collaborates in the Caribbean Israel Center for Cyber Defense

www.caribbeancyberdefense.com/about-caribbean-israel-center-for-cyber-defense/

ABOUT US

**The Need**

Excerpts from the 2016 Cyber Security Report produced by the Inter-American Development Bank (IDB) and the Organization of American States.

Despite the increased improvement in technology in the Caribbean and Latin America, these regions remain highly vulnerable to cyber-attacks. Four out of every five countries in the region do not have a cybersecurity strategy or plan for protecting critical infrastructures. Two out of three do not count on command centers and cyber security controls.

The capability and competence of law enforcement, security agencies, and the private sector information technology professionals for defending against cyber-attacks is very low and needs to be developed. According to the report, cybercrime worldwide cost US\$575 billion a year which represents 5.5% of the global GDP and in Latin America and the Caribbean, it's costing US\$6billion. With these resources, the Caribbean could increase fourfold the Caribbean Scientific Researchers.

**Purpose of the Centre**

To provide Cyber Defense Solutions for the Caribbean and develop the capacity of information technology professionals in law enforcement, security agencies, critical infrastructure, financial infrastructure and the private sector to defend against cybercrime in all its forms.

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## Strategic Partners

### Caribbean Israel Ventures Inc (CIVI)

CIVI is an affiliate of the Caribbean Israel Leadership Coalition (CILC) which has a mission to facilitate closer ties and collaboration between the state of Israel and the Caribbean economically, diplomatically and culturally. The mission of CIVI is to utilize Israel's technology and investment to strengthen Caribbean nations while increasing bilateral trades between both nations.

## Our Sphere of Operations

The target market for the Caribbean Israel Centre for Cyber Defense includes Antigua & Barbuda, Bahamas, Barbados, Dominica, Grenada, Jamaica, U.S. Virgin Islands, St. Kitts, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago, Belize, Haiti, Montserrat, Suriname, Anguilla, Bermuda, British Virgin Islands, Turks & Caicos, Cayman Islands, St. Maarten, Aruba, Curacao, Martinique, Guadeloupe, Guyana, Dominican Republic and the Netherland Antilles.

## **DIGITAL LITERACY**

Throughout her contribution, the Minister made reference several times to the need to develop a *“knowledge-based and digital society that sees our people well educated and using their knowledge to drive innovation, entrepreneurship and enhance the quality of life”*. On this we concur...

The GSMA Report *“Connected Society: Digital inclusion in Latin America and the Caribbean”* identifies the lack of **“digital literacy and skills”** as one of the biggest barriers to digital inclusion in Caribbean. With Digital rapidly becoming the dominant mode of interaction for commercial, social and economic activity, Digital literacy and the ability to *collect, organise, manage, evaluate and apply Data* to various business scenarios and activities is rapidly becoming an essential in demand employability skill. **Digital literacy and Data skills** are no longer a privilege, but have become a universal right for all Jamaican youth.

UN's Sustainable Development Goal (SDG 4) emphasizes this imperative. Target 4.4. seeks to *“increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship”*

But, Digital Literacy goes beyond *“Having digital skills and the ability to:*

- *To copy or move a file or folder*
- *Sending emails with attached files*
- *Using copy and paste tools*
- *Transferring files between a computer and other devices*
- *Finding, downloading, installing and configuring software*
- *Using basic arithmetic formulas in a spreadsheet*
- *Creating electronic presentations “*

Digital Literacy does require the competency to carry out these tasks using Digital tools and working with digital media:

But it also involves:

- The ability to work with, analyze and manage data, information and digital content
- Interacting, communicating and collaborating online using digital technologies; and being able to manage and safeguard one’s digital identity
- To create and edit digital content in different formats, and to express oneself through digital means (*and this can range from creating documents, to websites to coding*)
- The capacity for critically thinking and problem-solving creatively using digital technologies

We have to be prepared to think/act big about this challenge, because it speaks to the future of our youth and our future competitiveness as an economy and a society. We have to exercise policy and strategic leadership in this critical area, and mobilize key public sector agencies (MOE, HEART, etc.), private sector interests and multilateral allies around a coherent vision about how we adequately prepare our future citizens for the *“knowledge-based and digital society”*

As we contemplate the future of the Universal Service Fund, amidst declining revenues, its mission and program priorities have to be re-shaped and re-oriented around the challenge of building digital human capital, rather than simply building infrastructure.