



INNOVATION &
#IOT
 THE INTERNET OF THINGS

2019 - Event Report

2ND ANNUAL
SYMPOSIUM
 ON INTELLECTUAL PROPERTY, TECHNOLOGY & INNOVATION



WHY ANOTHER SYMPOSIUM?

The symposium was organized to enable various stake holders in the Industry to meet and have a dialogue to evaluate how far we have come and also have a bird's eye view into the future ahead for us all. This two day event from 24th to 25th of October 2019 at Speke Resort Munyonyo was organized by KTA advocates, in conjunction with the Uganda Law Society, East African Law Society, AGA and AAP.

The theme of this year's symposium was "THE ROLE OF THE LATEST INTELLECTUAL PROPERTY RIGHTS: INNOVATION AND THE INTERNET OF THINGS".

With key note addresses on topics centered on innovation and the internet of things, as well as fully constituted panelists with expertise knowledge regarding the dynamics of the topics and industry, a comprehensive discussion upon the themed topics was substantiated to the achievement of an in depth analysis, understanding and reflection upon the overall opportunities, challenges and advantages within the application of advanced software and other-end devices on communication networks in transforming Uganda globally.

If we prepare well in this age
we shall harness the benefits;
otherwise we prepare to fail

EDGAR TABARO

S P E A K E R H I G H L I G H T S



Dr. Roy William Mayega
Deputy Chief of Party for the
Resilient Africa Network



Dr. Rosalind Parkes-Ratanshi;
Director Uganda Academy
for Health Innovations at the
IDI



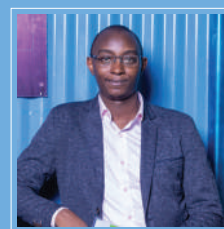
Timothy Mugume
Country Manager Jumia



Rune Schanke Eikum
Senior Consultant at Tinkr



Sudesh Kaka
Head of Design and
Innovation at Sudesh
International Consultancy



Lawrence Muthoga
Technical Evangelist 4Africa
Initiatives (Microsoft 4Afrika)



Joel Muhumuza
Country Manager
JUMO world



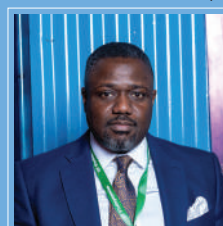
Augustine Idoot
Partner at Kampala
Associated Advocates



Mable Kasente Ndawula
Partner Deloitte Uganda,



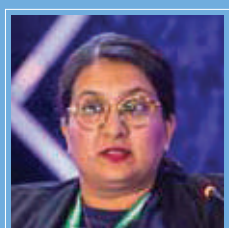
Gerald Abila
Founder Barefoot Law



Adeleke Alex-Adedipe
Partner, Duale Ovia &
Alex-Adedipe



Alfie Pearce Higgins
Chief Finance Officer, Safe Boda



Nahida Bhagani
Digital Marketer



Collins Mugume
MD Blush Media



Solomon Byakutaga
GM- All3N



Dr. Anthony Kakooza
Advocate Sipi Law Associates



Alice Namuli Blazeovic
Partner
KatendeSsempebwa Advocates



Phoebe Murungi
Sun Kissed Wellness



Lanre Kolade
Chief Executive Officer
C squared



Vincent Bagiire
Permanent Secretary
Ministry of ICT



Zulaika Kasajja
Partner
Kampala Associated Advocates



Leonard Businge
Senior Associate
Kampala Associated Advocates



Sunday G Ndamugoba
Partner ABC Attorneys



Mercy K. Kainobwiso
Director Intellectual Property
URSB



Chris Lukolyo
Digital Country Lead
UNCDF



Martin Roy Lukwago
Head VP ABSA,



Sandra Subbi
Artist



Maurice Kirya
Artist



Ojakol Ivan Allan
KTA Advocates



Grace Nakabugo
Principal Associate
MMAKS Advocates

S P E A K E R H I G H L I G H T S



Dr James Kasigwa
Director, Regulation and Bio Safety
Ministry of Science and Technology



Edgar Kasenene,
CEO Retro Rabbit



Arnold Mangeni
Director Information
Security NITA



George Njoroge
Managing Director
East African Data Handlers (K) Ltd.



Jessica Schutzman
Bureau Chief
Financial Crimes Unit
New York State



Riccardo Ridolfi
Founder C.E.O
Equatorial Power



Peter Kawumi
Interswitch



Mike Mompfi
C.E.O Enza Capital



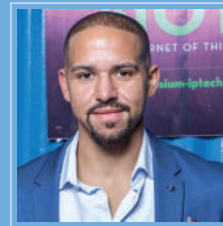
Ian Mutibwa
Partner Signum Advocates



Anja de Feijter
Executive Director
Agri-Business
Development Centre. (ADC)



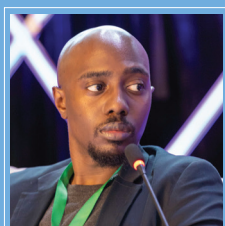
Sarah Banage
Head Corporate
Affairs, Uganda National Oil
Company



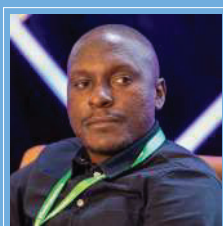
Antoine Bracmort
Head of Innovation
Century Group



Martha Huro
General Manager
Transnet Music Limited



Michael Matovu
Expert English Voice Talent



Julius Kyazze
C.E.O Swangz Avenue

Our 2019 Partners



Day 1

The Symposium opened with welcoming remarks from Mr. Edgar Tabaro; Partner at KTA Advocates wherein he re-emphasized and highlighted the importance this great event.

He encouraged the major players and representatives from those fields to engage and delve into discussions during this 2 day event to the end that policy, progress and the law may be positively influenced. He also brought to attention the dawning of the 4th Industrial Revolution and the resultant implications not just on Uganda, but on the world as a global village.

Key Note Address

by Prof. Roy William Mayega, Deputy Chief of Party for the Resilient Africa Network

"The Evolution of Technology: Solving the Global Health Problem"
Health is at the center of Epidemiology

Prof. Roy William Mayega begun by illustrating the relationship between health and technology in the context of the global health problem. He emphasized that within health were the aspects of access, affordability and quality of health services that looked to technology for achievement. Existing health challenges therefore make technology the answer in the world today. He went on further to state that technology as the answer is applied in a world where preventable diseases are still rampant, non-communicable and lifestyle diseases are steadily rising and with approximately 20 new diseases in the last 3 decades alone discovered.

In Uganda today, he gave examples of the EpiTent, a re-imagined tent for emergency human led service delivery in hot climate offering passive cooling of over 7 degrees Celsius, a 95% improvement in airflow over existing structures that uses sensory technology to manage temperature.

In a panelist discussion constituting Dr. Rosalind Parkes-Ratanshi- Director, Ugandan Academy for Health Innovations at IDI, Allan Katamba- Public Health Specialist, Prof. Roy William Mayega, Deputy Chief of Party for the Resilient Africa Network moderated by Dr. Martin Balaba-Medical officer, Infectious Disease Institute more light was shed on the topic of health and innovation and the discussion furthered.

As moderated by Dr. Martin Balaba-Medical Officer, the discussion centered on the key strategies available to incorporate usefulness of technology in health care in Uganda.

Mr. Allan Katamba answered with reference to the strategy applied within his own health program. He stated that within the health program is an evidence based approach to achieve cost effective solutions. This entailed on-the-ground research in order to identify specific needs. Dr. Rosalind Parkes-Ratanshi went on to further state that the best way in her experience and work has been applying a strategy that starts from the needs of the targeted demographic. Prof. Roy William Mayega was of the opinion that a strategic method would be to capitalize on health data. Effective use of health data would be more usefully applicable to many health services and activities and in the end, provide better health care.



WELCOME REMARKS;

By Joyce Nalunga; the Chief Executive Officer;
Uganda Law Society

Digitization of the legal profession has come at the right time. We all need to be tech-savvy to thrive or be phased out.

She welcomed everyone to the event and emphasized the need for lawyers to harness technology as a bridge to increasing access to Justice. That technology would transform lives, the legal Space and its narrative.



How to Build Internal Innovation Competency

Uganda should move from innovative products to innovative organizations.

This segment of the symposium was ably handled by **Rune Schanke Eikum, Senior Consultant - Tinkr** and **Sudesh Kaka, Head of Design & Innovation, Sudesh Int'l Consultancy**.

In an interactive and engaging joint presentation, **Mr. Sudesh Kaka** kicked off the discussion of this topic with the definition of internal innovation competency as a functional need that companies must include as a persistent pattern of behavior resultant from knowledge, skills, abilities and motivations of its people. Mr. Sudesh Kaka further stated that an organization ought to have culture that fosters innovativeness among its people. This could only be achieved with the right strategy in place.

Mr. Rune Schanke Eikum then stratified the enablers of innovation competence into leadership, process and culture. He stated that leadership entails a willingness to motivate others by inspiring vision. When it came to process, in the end, despite a deliberate innovative attitude, it was the skills and an organized process that achieved the innovation. Concerning culture, **Mr. Rune Schanke Eikum** pointed out that a cultural context must be understood well to have relevant innovations received.

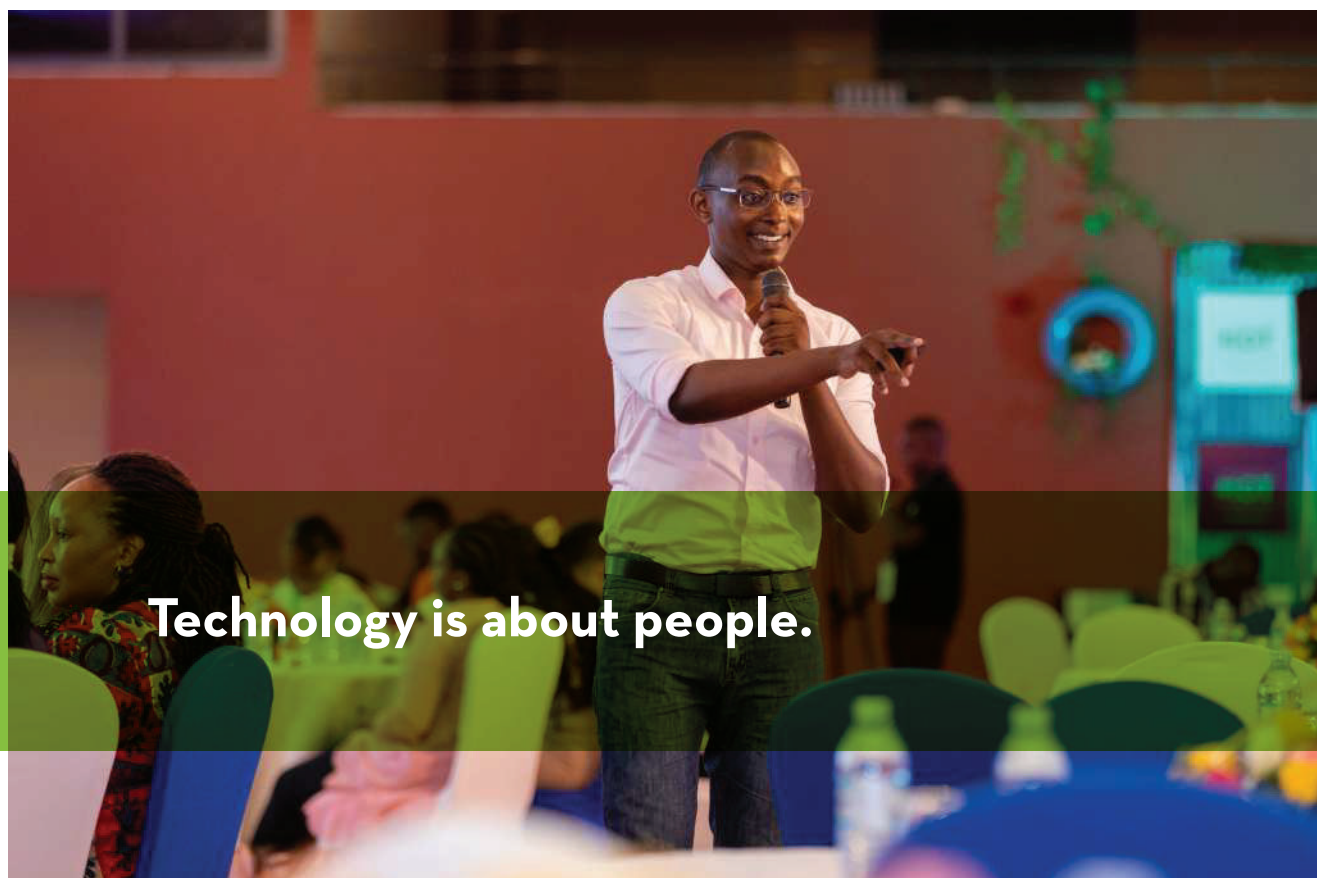
He conclusively pointed out that whereas the trend was to engage more resources in product and service development, a shift to resource allocation, marketing, networking, customer involvement among others would have innovators realizing much more value than that at present.



Rune Schanke Eikum, Senior Consultant - Tinkr and Sudesh Kaka, Head of Design & Innovation, Sudesh Int'l Consultancy.

Uganda should move from innovative products to innovative organizations

Artificial Intelligence & the Future of Business



Technology is about people.

This topic was discussed by **Lawrence Muthoga, Technical Evangelist 4Africa Initiatives (Microsoft 4Afrika)**. In an eye opening discussion, Mr. Muthoga started off by showing an identifiable cycle necessitating the existence of technology today. As problems today were inherently human, a human need firstly exists and then requires a technological innovation to alleviate that human need. In the end, innovation was the solution.

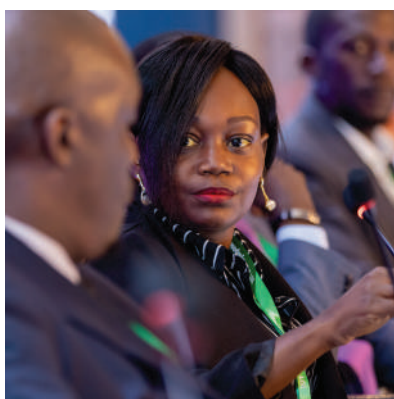
He cut straight to Artificial Intelligence by defining it as technology that can perceive, learn and reason to extend the capabilities of people. Through perception, artificial intelligence receives information by sensory vision and through speech activation. Its cognition is applied in the processing of the data perceived.

Mr. Muthoga then discussed data stating that "A system will be as biased as data is." When it came to data there were aspects of processing, analysis, implication decisions to consider. An analysis of data created implications concerning the data subject. These implications guided the decisions made based on the data and influence the ultimate results. Therefore this day and age presented newer and better ways to make sense of data.

The revolution of industry began from an intimate knowledge of a problem

A panel was constituted to discuss this theme composed of **Joel Muhumuza- Country Manager, JUMO WORLD Augustine Idoot-Partner, KAA, Nielsimms Sangho, Country Manager- Flutterwave, Lawrence Muthoga - Technical Evangelist 4Africa Initiatives (Microsoft 4Afrika)**, and moderated by **Jaminah Apio - Partner, ABM Advocates(IP Cluster)**. The discussion about AI continued but with an emphasis on its application to businesses.

A Case Study of WeWorks: an American Company was relied on to set the ball rolling .We Works is an American commercial real estate company, had been in a fiasco since August when it begun its efforts to becoming a public company. In one month, its cut its valuation down to as low as \$10 billion(from \$47 billion) and delayed its initial public offering. In October, it was taken over by its biggest investor in a bail out with its valuation further dropping to \$8 billion. Against this backdrop, the discussion opened with questions put to panelists concerning what the issue actually was in the context of AI based innovations, in this instance.



Mr. Muthoga started by pointing out that it is usually the business model and not the technology that is the issue. This was re-echoed by **Mr. Augustine Idoot** as well.

Mr. Nielsimms Sangho additionally pointed out that innovation and failure go hand in hand. So many lessons can only be garnered from trying something out and failing. Therefore, an enterprise bouncing back isn't only desirable today, it is completely possible once such lessons are applied to the existing problem.

Mr. Joel Muhumuza on this issue conclusively stated that AI based innovations are tools and not magic wands to make businesses thrive. Instead, experiences with AI based tools should guide innovators to the best ways they may be applied after understanding what the artificial intelligence based tools really are, too.

**Artificial intelligence is
the second coming of software.**

Lawrence Muthoga



New legal Business Models in this Age of the Internet of Things



The Panel for this discussion was constituted by **Brian Ndyaguma- Business Development Manager, Hague Institute for Innovation of Law(HiiL), Gerald Abila - Founder, BarefootLaw, Adeleke Alex-Adedipe - Partner, Duale Ovia & Alex-Adedipe** and moderated by Linda Alinda Ikanza- Law Development Centre.

The overarching question in this discussion was whether the traditional business model was still tenable in this era of disruption. With many lawyers in the room, and a diversity of legal business models on the panel, the discussion was riveting. Mr. Adeleke Alex-Adedipe stated that as lawyers, so much more could be done better in legal service delivery. The Internet of things and its application in the existing legal business model therefore presented great chance for this improvement to be exemplified. **Mr. Gerald Abila** had a nuanced divergence from this view. This was on the premise that applying Internet of things to the existing legal business model is just like proverbially pouring new wine in old wine skins.

He posited that in the end, the existing business models should be changed by discovering in them what could be transformed.

This led to the question of application; 'How have law firms therefore innovated in the current times?' **Mr. Adeleke Alex-Adedipe** emphasized that trust is indispensable in the legal profession and that the legal profession is relational. The efficacy and added convenience to legal service delivery by IOT would ultimately only compliment but not change the existing legal business models. Mr. Gerald Abila to this had the view that the world is moving, it is no longer solely product based. The legal service delivery was no exception. This was eventually culminated in the state of the current legal service delivery developing today vis-as-vis the traditional legal business model.

A photograph showing three panelists seated at a table with microphones during a discussion. The text 'The Era of Tech Disruption in Africa; Opportunities & Challenges' is overlaid on the image.

The Era of Tech Disruption in Africa; Opportunities & Challenges

The panelists for the discussion of this topic were; **Mable Kasente Ndawula- Partner Deloitte Uganda, Solomon Byakutaga GM- All3N, Alona Katz- Assistant District Attorney, New York State** and was moderated by **Denis Ruharo- Strategy Director, D-Mark Company Limited.**

"In the era of tech disruption, new innovations are creating new markets and value networks. This eventually leads to the disruption of already existing markets and their ultimate displacement rendering them obsolete".

With this reality, the discussion had these general thoughts.

Ms. Mable Kasente Ndawula stated that innovators must be more agile than ever. The imperative was to move with the times or the consequence is that you are left behind. Ms. Alona Katz stated that in her own experience as a prosecutor, it was not as easy to "follow the money" as it was before the era of tech disruption. New innovations now encouraged anonymity and the use of false data. The only way forward would be to destroy the incentives to commit cybercrime related offences, thereby preventing the crime before it occurred.

The discussion then pivoted to the threats local enterprises face against the big multinational companies in the disruption era. To this **Mr. Timothy Mugume** shared that local enterprises still have more space than would be considered in the current era as with segmentation of markets, there is more opportunity and therefore a bigger market.

"The Education System in this Fourth Industrial Revolution; is it Fit for Purpose?"

The next topic discussed was centered on the education system in this fourth industrial Revolution.

On a panel comprising of **Dr. Anthony Kakooza- Advocate Sipi Law Associates**, **Alice Namuli Blazevic- Partner**, **Katende Ssempebwa Advocates** and moderated by **Ojakol Ivan- KTA Advocates**, Education and the changing times was interactively discussed.

The opening theme was; "Looking back to look forward": was this even the right question to be asking when it comes to the education and its fitness for purpose in the 4th industrial revolution?

To this **Mrs. Alice Namuli Blazevic** begun by emphasizing the point and relevance of education; knowledge. As knowledge in this day and age is ubiquitous, the system wasn't the only source of knowledge dissemination. In the end using old methods that did not cater for the increasing amounts of information day by day, were ultimately preparing students for needs of the past. The result was that students come out of school unprepared and ambushed by the realities of the now and tomorrow.

Mr. Anthony Kakooza agreed to this by adding that the call for legal innovation was actually even bigger for law academicians and legal education with the dynamism of the law, for example in Intellectual Property and Cyber law. Our education systems must therefore do more to fit the ever-changing mold. **Mr. Anthony Kakooza** ably articulated the fact that in this day and age, competence based on result delivery is the requirement and standard. If Education wasn't facilitating that, then it is rendered useless firstly by its non-application and secondly by its replacement with other means of learning how to be relevant in this age.



Intentional Healthy Living

Phoebe Murungi from Sun Kissed Wellness, in taking us through this session pleasantly diverted us from talk of innovation and technology to a discussion even more personal. With the only movement in a day being from one meeting to another, the norm was sitting eight hours a day working a desk job. This wasn't always healthy and in fact more of the opposite. With this reality for most of the people in the room, she advised that regular exercise is one of the ways to actively reduce stress with a reasonable gym time, a regular walk or run around the neighborhood or office. She also mentioned that activities like walks lead to an increased sense of mental well being and a good thing for working such stressful jobs. She stated that with a proper understanding of your body and its needs, healthy eating produces outstanding results. The take away was the importance of making a decision about healthy living.



Digital Marketing for the 21st Century; How to Optimize the Use of Digital Media to Grow your Business/Practice."

Panelists for this discussion included **Timothy Mugume- Country Manager, Jumia**, **Collins Mugume- MD, Blush Media**, **Nahida Bhegani- Digital Advertiser**, **Eunice Among- Safe Boda** and was moderated by **John Ssenkeezzi- Digital Specialist, Airtel Uganda**.

The panel discussion kicked off therefore with a need to identify and understand the current digital opportunities. **Ms. Nahida Bhegani** spotlighted the importance of differentiating oneself. She added that once you did your "research" to this end, it would be easier to synergize opportunities that inherently are creating themselves.

Mr. Collins Mugume made his contribution to this by stating that there are always untapped areas in markets. This made opportunity a constant.

Mr. Timothy Mugume was of the view that there was need for the diversification of channels to create opportunity. Ultimately within the same market, you would find the same targeted market, but with distinguishable needs and in turn that was opportunity in itself.

The discussion then addressed the replacement of traditional marketing with digital marketing. To this **Ms. Eunice Among** affirmed that indeed, digital marketing was replacing old traditional marketing models and its application stretched widely and over the confines of just applications only, but even to website use. That because of this, there were many ways to market digitally with even more opportunities to segment targeted demographics for commercial use.



"Block chain& Smart Contracts; How to efficiently leverage the power of block chain"



AI is here today and part of tomorrow; so let's embrace it.

Dr. Anthony Kakooza opened his address by defining block chain as a decentralized, distributed public technology used to record transactions across a connected network so that any involved record could not be altered retroactively, without a consequential alteration of all subsequent blocks. He also explained that Smart Contracts were agreements embedded in all sorts of property controlled by digital means. He additionally defined Artificial Intelligence as adaptive technology that learned on its own.

He then discussed the application of AI in smart contracts by outlining this correlation. AI was applied within smart contracts as there is use of constant interaction to obtain feedback or more data for application. He also illustrated that AI in smart contracts analyses the contract lifecycle, the procurement systems applicable in the transaction and even requests review from the users. As block chain used a decentralized ledger system, the user determined and drove the interaction experience. The pseudonym nature of the system and data immutability were also recognizable characteristics of block-chain. These characteristics therefore reduced the role of AI in comparison to smart contracts. Conclusively, he emphasized that AI could still improve in its use and application and was here to compliment and add value to the human experience.

"Cryptocurrency: Has the Bubble Burst?"



Panelists for this discussion were **Leonard Businge- Senior Associate, Kampala Associated Advocates** and **Rashmi Pillai- Executive Director, Financial Sector Deepening Uganda (FSD)** moderated by **Olukayode Osunsan- Managing Director, Logix Technical Solutions Ltd.**

Attention was called by Mr. Olukayode to the volatility of the currency. To this, Mr. Leonard Businge stated that even while that was true, crypto currency was still going strong. Its predictability had created some identifiable patterns to allow close to correct speculation in its value. Mr. Olukayode also shed light on the fact that a lot of the tech start ups today fit this model and incorporated this financial transacting method. How then had the government set a foundation for these start ups to thrive in their element?

It was agreed across the board that there was indeed very little foundation accorded to these start ups by the government in terms of law and policy. The only thing therefore was to begin the law making process catering for this type of support.

"Intellectual Property and the Digital Revolution; How can IP help Tech Start-ups Grow?"



The last presentation of the day was made by **Mercy K. Kainobwiso- Director Intellectual Property URSB**. She was of the view that with the current legal framework for Intellectual Property covering trademarks, patents, industrial designs and even geographical Indications and Plant Varieties, Uganda has put its best foot forward in the recognition of IP rights.

This progress was furthered by the fact that Uganda is signatory to International IP Treaties and by ratification, provides an even more comprehensive Launchpad and authority for the protection and promotion of IP rights.



The informative presentation laid ground work for the panel discussion with these panelists; **Mr. Patrick .J Mugisha- Assistant Commissioner Innovation and IP Management- Ministry of Science Technology and Innovation, Sunday G Ndamugoba- Partner ABC Attorneys, Paul Musasizi - CEO, Kiira Motors as moderated by Grace Nakabugo- Principal Associate MMAKS (Chairperson, IP Cluster Uganda Law Society).**

In the following panel discussion, the following areas were discussed. How could tech start ups be helped? To this,

Mr. Patrick Mugisha suggested that even while the laws gave cognizance to these IP rights in their numbers, legal mechanisms to nationally enforce the recognition of these rights must be effected. This was because infringement on these rights was still blatant and costly to those who hold these private rights.

How could the idea that IP applies to bigger companies and not small tech start ups be demystified? To this **Mr. Allan Muhumuza** brought to light the fact that some of the runners of these tech start ups were not aware of their IP rights or the benefits of these rights. If efforts were directed towards IP education through seminars, conferences and workshops like the symposium itself, great change could be reflected.

Day 2

Design Thinking: How to Remain Relevant in the Digital Age"

Mr. Edgar Kasenene of Retro Rabbit began by emphasizing that the commoditization of roles was here in the present age with us. He pointed out that the reality was that human jobs were being replaced by technology; with robots in manufacturing factories, with applications and other realities. He stated that the commoditization of roles was happening not just because of technology but because the world was evolving. Technology was simply an element or tool of that evolution; an implication of behavioral dynamism in cultures, fueled by globalization in the machine process that was the information sharing era.

It was therefore not about technology but about understanding that technology was an enabler of reskilling, purpose and relevance. He pointed out the paradigm shifts in the evolving world that included those from local and linear emphases to global scopes and exponential heights; from knowledge and expertise to curiosity and creativity; from security and product push to an abundance and customer pull.

He also brought to light the fact that design thinking was a cycle: with changing technology is changing competition. Eventually, there was also a changing customer that technology must be applied to-and the cycle goes on and on. This is affirmed by the fact that today in product and service delivery, customers expect value and instant engagement. It is therefore imperative to listen and learn from this; to pivot and be agile.

**Innovation is not a Department;
it is a way of thinking**

"Opening Remarks by Markus Green Board Member - AGA"



Markus Green; the Board Member: The Attorney General's Alliance began by stating the role of the Attorney General's Alliance in conjunction with the Africa Alliance Partnership as being; to set out to organize workshops, seminars and conferences aimed at sharing knowledge, experiences and training to develop and strengthen both the human and institutional capacity required to combat transnational crime in African countries.

In an alliance that had already seen African countries like Kenya, Zambia, Ghana, Malawi, Nigeria, benefits from trainings on wildlife trafficking, trade based anti-money laundering, cybercrime and electronic evidence, Uganda through the annual symposium had benefitted from the trainings on Digital Forensics.

He further broke down their role in taking part in the fight against "technology's dark side." In this mission, at the symposium itself, breakout sessions and trainings on: Digital Forensics: The Science behind the Investigation and Prosecution of Digital Crimes" were carried out by key participants in the Director for Public Prosecution's office and the Judiciary through the Judicial Training Institute, as well as the Financial Intelligence Authority, Commercial Banks and the Uganda Law Society.

A One on One with the Permanent Secretary Ministry for ICT in Uganda- The role of Government in Facilitating the Growth of Technology & Innovation in Africa"



Hon. Vincent Bagire Permanent Secretary Ministry of ICT, in a one on one session moderated by Mr. Edgar Kasenene CEO, Retro Rabbit had the question put to him under this topic; as to whether the education system in Uganda was providing students and future players in the market place, with a relevant skill set as the times and product commoditization were rendering jobs replaceable by technology.

Hon. Vincent Bagire pointed out that while in many ways the education provided could improve to fit this purpose, the infrastructure that the ICT sector constituted was the foundation of it all. This industrial independence although supervised in the end had government ultimately realizing what it initially envisioned with regards to growth and tech innovation. In the same way therefore he added, the industry found its future participants with the inescapable but achievable task of adapting in order to be relevant in the industry.

With recourse to access to information, **Mr. Edgar Kasenene** asked the Permanent Secretary, what the government was doing with regards to ensuring information was accessible with the internet. To this, he responded that in fact, there was a need to promote connectivity here in Uganda for sure. However, this need was being addressed mainly with the private sector at the present, with investors, ISPs and other entities providing broadband. This left the government with only having to foster a healthy eco-system with the creation of effective laws and policies, for such enterprises to thrive.



This was shortly followed by a panel discussion on **"Broadband Policy, Uganda Internet Exchange Point, ICT Policy"** with panelists that included **Zulaika Kasajja-Partner KAA**, **Vincent Bagiire- Permanent Secretary Ministry of ICT**, **Lanre Kolade- Chief Executive Officer, C squared**, **Dr. James Kasigwa- Director, Regulation and Bio Safety- Ministry of Science and Technology** and as moderated by **Godfrey Serwamukoko- C.E.O I-way Africa**.

Starting off was a question to the panel concerning the state and progress of ICT development in Uganda. To this **Zulaika Kasajja** was of the view that so much has steadily and fortunately improved in the ICT sector over the decade. Her stance was that as a country, we were taking steps in the right direction although there was evidently still much more that could be done.

Mr. Lanre Kolade was asked about the progress of the would be "broad band revolution". To this, he explained that while fiber was the foundational internet supply infrastructure, there were also options that included wireless systems and other technology to supply internet and in fact, even more cost effective.

The question then became, was Uganda ready or able to pioneer its own "tech unicorn"? Its own "Google" for example? To this, **Dr. James Kasigwa** stated that Uganda was building a self -sustaining system and encouraging that creation by effective policy and law. The government therefore had a nurturing and supervisory role instead. The hope and promise was in the private sector achieving this possibility.

**Every two days, we create information
greater than the beginning of time.**

Bernard Marr



"Cloud Computing and Data Protection: How to Safely Leverage Big Data for Business Growth."

This topic of the symposium was opened by **Stella Alibateese, the Director Regulation Legal Services, National Information Technology Authority (NITA)** who presented the keynote address for this segment. She started off by defining Big Data as high volume, high velocity variety data. Cloud computing on the other hand concerned the processes of storing and accessing data through the internet. This information could later be accessed and utilized without having to retrieve the same from the sources of such information.

Cloud computing and Big Data were regulated by the recently commenced **Data Protection and Privacy Act 2019** that tackled aspects of data collection and processing, security of data, rights of data subjects, data offences and the principles of data protection. Against this legal aspect she then delved into the challenges that the realities of Big Data and cloud computing presented including privacy considerations, security vulnerabilities, access and sharing of information issues, liability placement in cases of breach, jurisdictional issues among others.

Her conclusion to the audience was that these challenges, as concerning big data and cloud computing could only be ably handled within the ambits of the law. She therefore encouraged compliance above all else with regards to data safety and protection.

The discussion then continued with a panel constituting **Arnold Mangeni- Director Information Security NITA, George Njoroge- Managing Director, East African Data Handlers (K) Ltd, Jessica Schutzman-Bureau Chief, Financial Crimes Unit, New York State and Stella Alibateese, the Director Regulation Legal Services, National Information Technology Authority (NITA) with moderation from Aziz Kalisa** on the topic of “Emerging Technologies and cyber security; was Uganda up to par with the latest trends?”

The concern raised firstly was whether the average Ugandan knew of his data protection/ privacy rights. To this Mr. Mangeni submitted that sensitization efforts were underway to educate the lay man on his data and privacy rights. He pointed out that organizations like NITA were aware of this and the ramifications of this continued ignorance.

The focus then shifted to small and medium enterprises: what challenges did they face as regards cloud computing? Mr. Njoroge to this stated that if we indeed wanted to work on promoting cloud computing and access to information, there needed to be great strides taken in making it affordable in the first place.

As a person involved in combatting financial crimes, the question of how financial crimes were handled in other jurisdictions was put to Jessica Schutzman. To this she stated that with the merging of legal systems and application of integrated legal mechanisms and processes like the use of search warrants and subpoenas, financial crime could be easily combatted too by these means.





"Taxing Digital Assets: Social Media & Mobile Money Tax One Year Later"

On a panel constituting **Ian Mutibwa-Partner, Signum Advocates** and **Stephen Tumwesigye- Partner, TASLAF Advocates and Consultants** and moderated by **Silver Kayondo, Partner Ortus Advocates** the question regarding the performance of OTT one year later was raised and discussed.

To this Tumwesigye Stephen explained that when it came to taxation of digital assets, there was a goal to balance the growth of the economy and industry, but also obtain revenue from it. This narrative was computed with the fact that the end user is taxed as opposed to the multinational companies.

In addition to this, Mr. Ian Mutibwa shed light on International best practice on the taxation of digital assets. The international consensus was that such tax is essential or the economy is inadvertently crippled. To this he stated that most countries had in fact chosen digital service tax but was still an evolving area. Overall, the general observation was that the introduction of OTT service tax reduced the number of internet users as opposed to the Mobile Money Tax that had not at all deterred people from continuing to use this service.



"Trade Policy 3.0; In the wake of the AFCFTA, Realizing the Benefits of Trade Digitization."

In March 2018, the African Continental Free Trade Agreement was signed by 21 African Union member states. In varying phases of implementation, discussions regarding tariff concessions are underway and expected to be concluded in 2020.

In a panel discussion moderated by **Suleiman Kiggundu former Regional Director for Africa, CDC Group** and constituted by **Anja de Feijter- Executive Director, Agri-Business Development Centre. (ADC)** and **Sarah Banage- Head Corporate Affairs, Uganda National Oil Company**, the discussion tackled the following.

The first point of discussion put across to the panelists was how pre-existing primary needs like finding market, are reconciled with secondary considerations like the application of digitization in agriculture. Ms. Anja de Feijter explained that in the rural areas an introduction of digitization had begun with the need for financial literacy. It then delved into technology and people in the rural areas were now more open to digitization. However, digitization still had to be applied relevantly for it to remain considered by Ugandan farmers.

Turning to the Oil and Gas sector, the question then became how digitization would apply to it. Ms. Sarah Banage stated that Uganda was still in the exploration stage concerning this. The question they needed to ask and answer too was, what talent is out there? Once this question was answered, it would be known what was needed and available and what was not on a legal, sub contractual and marketing level. Digitization would therefore apply to these aspects.



"Fintech and the future of Traditional Banking"

The second last panel of the day was constituted to discuss Fintech and the future of Traditional banking. The panel comprised of **Antoine Bracmort**- Head of Innovation Century Group, **Martin Roy Lukwago**- Head VP ABSA, **Chris Lukolyo**- Digital Country Lead, UNCDF and **Peter Kawumi**- Inter-switch, as moderated by **Andrew Walusimbi**- Head Information Security EcoBank.

The discussion was kick started with the deliberation concerning "Fintechs and the fear of disruption; was this a legitimate fear for banks to have or not?" **Peter Kawumi** stated that it was not. Fintechs were not there to render banks obsolete. Banks were still a vital player in banking and in fact Fintechs thrived through collaboration with banks. All that would be expected for sure was that the banking models and structures would change and if not, had already started changing to respond to the thriving innovations in the delivery of services.

How was the difference in regulation in banks and Fintechs handled? To this, **Martin Roy Lukwago** stated that indeed while banks were more heavily regulated than Fintechs, regulation became even more complex to wade with the realities of integration of both Fintechs and Banks. Therefore, while it was not easy, there was some advantage garnered in integration by "watching the watched." **Chris Lukolyo** added that the prominence of Fintechs today would not allow this level of regulation to go on for long and the central bank would in time, appropriately react with increasing mobile money services extended to rural areas for example.

Was Block-chain a threat to banking? **Antoine Bracmort** submitted that Block chain and banks were an inevitable marriage. The advantages with regards to data immutability and Pseudonym offered by block chain made it more desirable in banking.



"Understanding Digital Content Distribution in Uganda: Opportunities for Ugandan Creatives in the market, challenges & the Future"



The last discussion for the symposium was centered on use of digital Distribution channels to market works of Art like Music and audio Visual works. It was kickstarted with a key note address by **Martha Huro**; the General Manager of Transnet Music Limited/ Boom Play. She centered her presentation on the need for deeper collaboration between the entertainment industry and content distributors. The tone was set with a video presentation introducing Boom play; a media streaming and download service with over 44 million users.

She statistically broke down the size and potential of Africa with 13.8 billion Africans constituting a young and youthful population. This made popular music more endearing to the masses as they were the main target and market demographic. Understanding that phones were widely owned across the continent, the application was embedded in phones and sold. This was one of the ways Trans-net Music has used digitization to create market for creatives.

It was against that foundation for a discussion by the panelists; **Michael Matovu**- Expert English Voice Talent, **Julius Kyazze**- C.E.O Swangz Avenue, **Sandra Subbi**- Artist, **Maurice Kirya**- Artist, "Sewa Sewa" **Ssewakiryanga James**- Artist and moderated by **Cedric Babu** from UBC.

In the panel, the artists, starting with Ms. Sandra Suubi shared and acknowledged the struggle it was to have a growing and reactive market, especially for less popular genres and styles of works of Art. There was therefore so much more that needed to be done with encouraging other artists to digitize and make use of the channels created by that effort. **Michael Matovu** added to this by emphasizing the existent danger of not comprehending our Ugandan culture today in a plurality which in turn would render any efforts to digitization useless, or alternatively, have Ugandan art appreciated in other countries except Uganda.

Ssewakiryanga James voiced his own experience with trying to get an audience to learn and love the African two scale instrument he invented and successfully patented. He explained the struggle with the fact that internationally, these opportunities from digitization were acknowledged and supported. Here in Uganda, there was still much to do in teaching the market to get on board with receiving products of Ugandan creatives in digital spaces.

Julius Kyazze explained the constraints he had in trying to stretch the diversity of creativity disseminated through the digital channels and foundations he has created through Swangz Avenue that has been in the industry for over a decade. Even though digitization was present and used by creatives, it was difficult to get the Ugandan market to respond to the content channeled through the digital avenues.



Maurice Kirya acknowledged the disparity in his own success and that of other artists existed for the reason that there existed primary needs like earning a living from the artistry and gaining recognition, before digitization would be even considered as a tool.



Closing remarks

Closing remarks were made by the Principal Judge Hon. Justice Yorakamu Bamwine, where he talked about the importance of integrating technology in this age and era. He used the Judiciary as a case study and illustrated how integration of technology in the legal system through electronic court case management and case reporting among other examples, has increased the efficiency of the system.

He added that more still had to be done with addressing the need to enhance interconnectivity amongst the key participants when it came to judicial matters; that is, lawyers, the courts, ministries and the Police.

In the same way, in all other sectors with the same basic blue print that outlines needs to efficiency, relevance, reach and interconnectivity, technology was the answer.

Thanking the innovation of the organizers of the symposium he encouraged the creation of avenues like this to facilitate progress and development especially as regards innovation and technology

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