



**EDUCATION AND AFRICAN FUTURES
CONFERENCE**



REPORT

MÉSTIL HOTEL KAMPALA
30TH - 31ST OCTOBER 2019



TABLE OF CONTENTS

1	Executive Summary	2
2	Introduction	3
3	Opening Session	4
	3.1 Welcome Remarks by CASTLE and Institute for National Transformation.....	4
	3.2 Opening Presentations.....	5
	3.2.1 Education and Africa 2063.....	5
	3.2.2 Current State of Education on the Continent.....	6
	3.2.3 Current State of Education in Uganda.....	7
	3.3 Discussion of Opening Presentations.....	8
4	Key Note Address Session	9
	4.1 Address by Chairman of CASTLE Conference.....	9
	4.2 Keynote Address by Dr. Tom Rudmik.....	10
	4.3 Address by Host of CASTLE Conference, First Lady and Minister of Education.....	12
	4.4 Address by Chief Guest and Official Launch of Castle.....	12
5	Breakout Sessions	13
	5.1 Presentation on Breakout Group II Session on Imaginal Learning Experiences.....	13
	5.2 Discussion of Breakout Group II Session Presentation.....	14
6	Panel Discussion 1	14
7	Session V Presentations	15
	7.1 Future of Education in Light of Changes in Work and Industry.....	15
	7.2 Education for Social Change.....	14
	7.3 Educational Curricula in light of Global Changes.....	17
	7.4 Skills Education for African Futures.....	18
	7.5 Trends in Distance Learning.....	18
8	Information and Communication Technology: Leap Frogging into African Futures	19
9	Panel Discussion 2	20
10	Closing Session	20
	10.1 The Journey into the Future of Education.....	21
	10.2 Remarks from the Institute for National Transformation.....	22
	10.3 Chairman’s Statement on Conference.....	23
	10.4 CASTLE Chairman’s Closing Remarks.....	23
	10.5 Closing Speech by Host.....	23
Recommendations:		
	Education and Africa 2063	24
	Current State of Education on the Continent.....	24
	Current State of Education in Uganda	24
	Keynote Address: “Transforming Education in Africa by 2030”	24
	Address by Chief Host of the conference	24
	Address by Chief Guest and Official Launch of CASTLE	24
	Future of Education in Light of Changes in Work and Industry	24
	Education for Social Change	25
	Educational Curricula in light of Global Changes	25
	Skills Education for African Futures.....	25
	Trends in Distance Learning	25
	Information and Communication Technology: Leapfrogging into African Futures	25
	The Journey into the Future of Education	25

1. EXECUTIVE SUMMARY

The Conference on Education and African Futures, 30-31 October 2019, held at Mestil Hotel - Kampala, Uganda, was convened by the Centre for Advanced Strategic Leadership Think Tank (CASTLE) and the Institute for National Transformation, in partnership with the Ministry of Education and Sports. The conference deliberated on the much-needed transformation of the education sector in Uganda and the African continent.

The rapid changes due to the information and technological advances have great potential but also raise serious ethical concerns, especially as impacts of these changes are often mixed and inconclusive. Africa will therefore need new skills to help it manage the challenges posed by these changes and other social issues. Africa will also need to think creatively to come up with solutions to increasingly complex global problems, youth unemployment and the challenge of a booming population which threatens to negate economic prosperity initiatives, all of which require changing its education focus to cater for the future. This is the main reason for the founding of CASTLE.

The purpose of the conference was to provide a platform for education stakeholders to interrogate models and potential pathways for futures education. The specific objectives of the conference were to:

1. Review forecasts on education, exchange ideas on policies, experiences and challenges in enabling equitable and quality learning in education;
2. Identify specific ways to better support the provision of equitable, quality education in view of African futures; and,
3. Deliberate on educational approaches that would better prepare African countries for the emerging world while addressing the growing challenge of unemployment.

The conference attracted participants from Nigeria, South Africa, Canada and Uganda drawn from government, research, academia, development and funding organizations, corporations, faith-based institutions, civil society organizations, practitioners from the non-governmental sector and a broad range of education innovators. It provided an opportunity for dialogue and exchange to identify practical measures for meeting the needs and aspirations of education stakeholders. There were engaging plenary and breakout sessions, panel discussions by experts, plus an exhibition of innovative education products and services. However, despite the diversity of speakers, panelists and invitees, the focus of the discussions was on critical challenges and opportunities around the following three themes:

1. The Genesis and Current State of Education on the Continent
2. Seeing and Creating the Future of Education in Light of Global Trends
3. Innovations and Trends in Education

Identified next steps for Uganda and Africa to transform the education sector include: selection of critical leaders to lead the transformation journey, establishment of prototype schools and replicating them throughout the country. Alongside these steps, promotion of skilling and harnessing available technologies to deliver online and distance learning will leapfrog Africa's capacity to meet future human resource demands.

The outcome of the conference was a report focusing on strategies for leapfrogging African education into the future. The policy recommendations were also identified. CASTLE will provide a platform that will promote the application of critical thought leadership to the governance of Africa's key sectors for national transformation.

2. INTRODUCTION

A World Bank report released on 5th March 2018 stated that Africa faces a “severe learning crisis” that undermines economic growth and the wellbeing of its citizens. Although access to education in Africa has dramatically improved since the 1990s, the report states that almost 60 percent of the world’s children who are out of school are in sub-Saharan Africa. Uganda has done much better than many African countries on access to education, but our key challenge remains the quality of education and the high dropout rates. These challenges are happening against the backdrop of rapid changes world over due to the information and technological advances that not only have great potential but also raise serious ethical concerns, especially as impacts of these changes are often mixed and inconclusive. Africa will therefore need new skills to help it manage the challenges posed by these changes and other social issues. There is therefore an urgent need to have an education system that not only addresses these challenges, but responds to future needs of Uganda, and Africa in general.

Additionally, the population in Africa is rapidly growing and projected to continue doing so for the rest of this next century. Anticipating and addressing the consequences of globalization, rising levels of youth unemployment and inequality, the explosive growth of online communications and the virtualization of business models, and, the Fourth Industrial Revolution will place enormous pressure on educational institutions, students, teachers and researchers. With application of innovation to foresight, it is possible to turn this potential challenge into great opportunities.

The conference on Education and African Futures held from 30th to 31st October 2019 at Mestil Hotel - Kampala, Uganda provided a rare opportunity to reflect on Africa’s current Education systems and how to transform them to adequately respond to the future needs of the continent. It was in line with the 2016-25 Continental Education Strategy for Africa (CESA) which seeks to educate a new African citizen who will be an effective change agent for the continent’s sustainable development as envisioned in the African Union’s 2063 Agenda. It was also in line with Uganda’s Vision 2040 which seeks to transform the Ugandan society into a modern and prosperous one in thirty years as articulated in the second National Development Programme (NDP II) 2015/16 – 2019/20. In September 2019, UNESCO similarly launched “The Futures of Education: Learning to Become initiative” aimed at sparking conversations on how knowledge and learning can shape the future of humanity and the planet.

Africa will also need to think creatively to come up with solutions to increasingly complex global problems, which require changing its education focus to cater for the future. It is for this reason that the Centre for Advanced Strategic Leadership (CASTLE) and the Institute for National Transformation (INT), in partnership with the Ministry of Education and Sports hosted the two-day conference.

The purpose of the conference was to provide a platform for education stakeholders to interrogate models and potential pathways for futures education. The specific objectives of the conference were to:

1. Review forecasts on education, exchange ideas on policies, experiences and challenges in enabling equitable and quality learning in education;
2. Identify specific ways to better support the provision of equitable, quality education in view of African futures; and,
3. Deliberate on educational approaches that would better prepare African countries

for the emerging world while addressing the growing challenge of unemployment.

Knowing that Africa is set to have the largest work force in the world, it is imperative that much thought goes into preparing for this reality. Adequately and appropriately educating this growing labor force is becoming increasingly urgent if African countries are to consciously steer social evolution to maximize the benefits and minimize the disruption and trauma associated with it. Applying foresight in the development of human capital will enable African countries to harness the future. New paradigms must be found and the burgeoning youth population needs to be equipped for future innovations and challenges that cannot be fully anticipated now.

Using the example of a Model called Profound Learning (PL) introduced in Calgary – Canada in 1997 by Master’s Academy and College that prepares students to be Future Ready, the focus of the interactions was for stakeholders to interrogate the model and find ways of integrating it into African Futures Education models. There is growing evidence that the PL Model has enabled institutions to transform their obsolete industrial age systems of education into those that are responsive to future needs of our countries. The PL model is based on four critical layers: Ownership, Mastery, Innovation and producing Future Ready Learners. PL promotes student ownership of the learning process by empowering the student to self-assess own knowledge gaps and work towards closing them.

3. OPENING SESSION

3.1 Welcome Remarks by CASTLE and Institute for National Transformation



CASTLE Board Chairman Dr. James Magara welcomed delegates to the conference, with special recognition of the Founder of the INT, Professor Vincent Anigbogu and the keynote speaker Dr. Tom Rudmik. He noted that the conference was preceded by a two-day think-tank workshop and was looking forward to continued engagement on the subject of education over the next two days of the conference.



The President of the INT Alumni Association of Uganda, Dr. Monica Musenero welcomed delegates to the conference and promised that it would be a forum with a difference in terms of ensuring prompt implementation of conference decisions. She highlighted that the conference was part of the activities to mark 10 years of the INT in Uganda, and that the Institute boasts of 600 graduates, from its *Oak-seed Executive Leadership Program* over the period, instilled with the core values of Responsibility, Integrity, Compassion and Excellence. The Institute has overcome the birthing stage and is currently set on course of growth, training, skills accumulation.

3.2 Opening Presentations

3.2.1 Education and Africa 2063



Dr. James Magara made the presentation on “Education and Africa 2063”¹, in which he defined education and the evolution of the global education system through the different industrial revolutions. The presentation had the following highlights:

- Education can be defined as the process of preparation for work and life, passed on from one generation to the next, and has a vital role in developing knowledge, attitudes and values in learners. This preparation, if done properly, enables people to contribute towards and benefit from an inclusive and sustainable future.
- Over the years, global education systems have evolved from the First Industrial Revolution in the 1800s, marked by the emergence of mechanization, through the Second and Third Industrial Revolutions, up to the current 4th Industrial Revolution (4IR) which is driven by the emergence of the internet and rooted in digitalization.
- Africa’s education system, however, remains hinged on the first Industrial Age and the colonial era, characterized by rote learning, cramming, exam-writing, mass learning, silo approach to subjects and emphasis on theory. The education system in Africa must be transformed and structured to prepare young learners for their world, for jobs that have not yet been created, for technologies that have not yet been invented and to solve problems that have not yet been anticipated.
- Africa has an opportunity to participate in the 4IR, but only if the continent’s education system is tailored to meet future demands: in a fast-paced, more integrated world with a larger and more mobile population.
- Opportunely, re-orientation of Africa’s education system is one of the goals aimed for by the African Union (AU) as stated in the AU’s Agenda 2063. The AU’s Continental Education Strategy for Africa (CESA 2016-2025) is the framework for transforming education and training systems in Africa. There is an opportunity for Africa to leapfrog in education as it did in communication.

¹ Presentation on “Education and Africa 2063” attached as **Annex III**

3.2.2 Current State of Education on the Continent



Founder of Incubator Africa, Ms. Alero Ayida-Otobo made the presentation on the “Current State of Education on the Continent”², which she acknowledged was collaboration with the next generation through the young and dynamic social reformist Mr. Otto Orondaam, Founder of Slum2School Africa, an organization with a vision to transform society by empowering disadvantaged children. The presentation had the following highlights:

- There is a need to define Africa’s identity and design education systems that align with the continent’s identity and requirements. In terms of identity, Africa is natural resource-rich, endowed with a beautiful landscape and culture filled with deep heritage and repute. The continent suffers less from natural disasters and is gifted with a young population. However, Africa does not reap the benefit of its endowments on account of an outdated education system.
- By 2050 Africa will be the only region with a rapidly growing population, with over 60 percent of the population below 24 years of age. This bulge in population could pose a great risk and threat to the continent, or could be the greatest asset and opportunity. It is important therefore, to examine the kind of education young Africans are receiving today.
- Africa’s current education system accentuates inequality, inequity and injustice whereby the place and circumstances of one’s birth may determine their mileage in training and achievement in life. It is imperative therefore, for designs of future education systems to correct these distortions if issues of poverty, incidence of disease and unemployment are to be effectively addressed.
- Africa’s preparedness for a future of work is largely nonexistent, given that the continent globally still has the largest number of potential learners not attending school, and the percentage of primary school students who pass a minimum proficiency threshold is often low, according to a 2018 UNESCO study.
- In order for education in Africa to prepare learners for a future of work, the education system must be transformed to impart 21st Century skills in line with the 4th Industrial era, which is grounded in Robotics, Data science and Artificial Intelligence, Biotechnology and Block chain technologies, among others.
- There are trends however, that are emerging among the young people, beyond the control of government and these include the rise of innovators and creators such as in the art, entertainment and fashion industries. These trends have seen the recognition of young African talent by world academies in various sectors. In conclusion, the future belongs to young African people and they should drive the future agenda by participating in the design of appropriate education programs going forward.

² Presentation on “Current State of Education on the Continent” attached as **Annex IV**

3.2.3 Current State of Education in Uganda



The Permanent Secretary of the Ministry of Education and Sports, Mr. Alex Kakooza, made the presentation on the “*Current State of Education in Uganda*”, which described the structure of the education sector in Uganda, identified the milestones achieved and the challenges which remain to be addressed by the government. The presentation had the following highlights:

- Uganda’s education structure consists of five (5) sub-sectors including pre-primary, primary, secondary, tertiary and university sub-sectors. Regarding pre-primary, the Ministry of Education and Sports facilitates its delivery through setting of policies, training teachers and licensing providers. Given its impact on the primary sub-sector, the Ministry of Education and Sports has designed an Early Childhood Development policy to guide the provision of pre-primary education.
- Since 1997 and 2007, the Government of Uganda (GoU) respectively provides free primary and secondary education, under the Universal Primary Education (UPE) and Universal Secondary Education (USE) Programs, and has registered exponential growth in school enrolment of children over the years.
- Main aim of the UPE program was to increase access, quality and efficiency in the delivery of primary education. While issue of access was sufficiently addressed, the spike in enrolled children overwhelmed existing school infrastructure and instructor capacity and has compromised the quality of education. Government is therefore currently focused on addressing the quality issues through initiatives such as the Early Grade Reading, which is being piloted in a few districts.
- In the tertiary sub-sector, the Skilling Uganda Strategy launched in 2012 aims to promote vocational training and increase graduate employability. To date, centers of excellence have been identified and curriculum designed to support the skilling of various industry experts, this far covering the agriculture, oil and gas sectors.

3.3 Discussion of Opening Presentations

3.3.1 Delegates observed that the current education system in Uganda appears to promote inequality and inequity, with mass migration from public to private sector schools, contrary to more advanced economies such as Finland and Norway where public sector education is preferred. Participants therefore queried how to bring focus back to a fair public education system in Uganda and Africa as a whole.

In response, it was highlighted that the military era of the 1980s led to the collapse of the previously more equitable public education system. In order to re-interest learners in the public education system going forward, issues of the quality of school infrastructure and teachers in UPE , USE and government/government-aided schools generally, need to be addressed.

3.3.2 Recalling the emerging trend of the rise of innovators, participants observed the need to design interventions that target young people who may be brilliant but untrained in basic skills of literacy and numeracy.

It was suggested that vocational training, with modules covering leadership training, personal values and attitude management skills, is a major tool that can be used to skill young people who may have fallen out of the early learning school system.

3.3.3 Participants observed that in Uganda, vocational training is perceived as an alternative for unsuccessful students rather than a scheme that imparts practical skills, which increase graduate employability. Participants thus questioned what strategies the Ministry of Education and Sports has in place to motivate interest in vocational training and skilling.

Ministry of Education and Sports acknowledged the need for change in attitude towards vocational training and indicated that it has developed a deliberate strategy to motivate Business, Technical and Vocational Education and Training (BTJET) which includes increasing public knowledge about the program, improving its delivery and incorporating it in the primary school curriculum.

4. KEY NOTE ADDRESS SESSION

4.1 Address by Chairman of CASTLE Conference



Conference Chairman Professor Joseph Oonyu, welcomed the Host, First Lady and Minister of Education and Sports, Hon. Janet Kataaha Museveni and the Chief Guest and Prime Minister of the Republic of Uganda, Rt. Hon. Dr. Ruhakana Rugunda, to the inaugural CASTLE conference. He welcomed delegates present, with special recognition of the Keynote speaker Dr. Tom Rudmik and INT Founder Professor Vincent Anigbogu. He also commended the tireless efforts of the CASTLE team, led by Dr. James Magara in organizing an effective conference.

Professor Oonyu underscored the importance of the conference in providing an opportunity for stakeholders to come together and discourse on the future of education in Uganda and Africa, especially following the launch of the UNESCO Initiative, on Futures Education, in September 2019. He expressed a desire for participants to dialogue, and interrogate alternative models or pathways, to leapfrog current education system and enable it respond to future demands. This effort is in line with the Continental Education Strategy for Africa and Vision 2040 for Uganda as well as the UNESCO Initiative.

He hoped that the conference would begin a transformation in Uganda's education sector and offer a platform to identify specific means to support equitable education. In conclusion, he hoped that at the end of the conference, delegates would have identified strategies to transform the education system, drawn up a roadmap to chart the way forward and identified various fora for continued exchange of ideas.

4.2 Keynote Address by Dr. Tom Rudmik



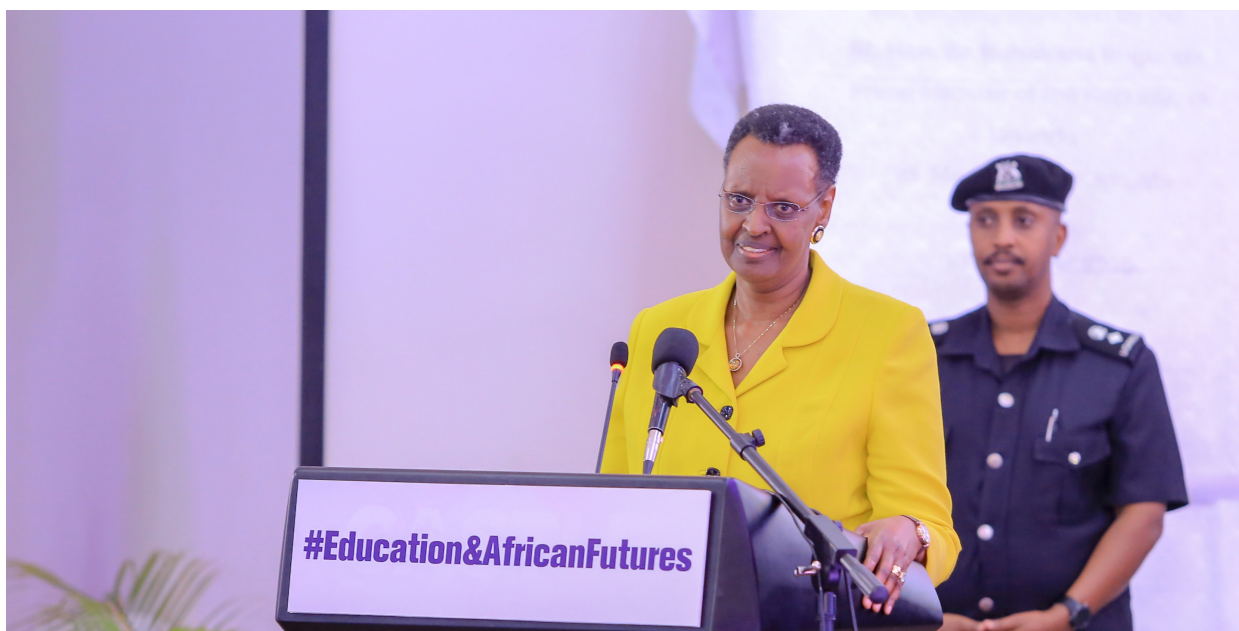
Founder of the Master's Academy in Calgary – Canada, Dr. Tom Rudmik delivered the conference keynote address, which mainly covered what it would take to transform education in Africa by 2030, and had the following highlights:

- Performance variation in education primarily stems largely from outdated education system, which is built on an industrial age model and does not recognize the giftedness of all children. The system is largely obsolete requiring transformation rather than mere improvement.
- The Profound Learning (PL) model, introduced in Calgary – Canada in 1997 by Master's Academy and College, has transformed education, based on four critical layers which include: Ownership, Mastery, Futuristic orientation and Innovation. PL promotes student ownership of the learning process by empowering the student to self-assess own knowledge gaps and work towards closing them. Under Mastery, the PL elevates learning from a neuroscience perspective, using teaching strategies, which sync with the student's natural and biological abilities to learn. PL also focuses on developing a futuristic and innovative student by imparting future-ready and innovation skills. Consequently, PL enables the student to pursue personal vision without limitation by achieving a high level of academic excellence and by becoming an Imaginal Leader.
- Imaginal Thinking (IT), which is a way by which people are able to see, learn and create the future, borrows from an Albert Einstein quote which reads, *"Imagination is more important than knowledge, for, while knowledge defines all we currently know and understand, imagination points to all we might yet discover and create."*
- PL recognizes that students need to be creative, discover new knowledge and thus need to become futuristic. In order for students to become futuristic, they need to use tools such as trend and impact analysis to create powerful scenarios of the future and design solutions to solve future problems. With futuristic training, therefore,

students become innovative and able to generate strong and sustainable growth for the transformation of their countries.

- The PL model has been able to shift the performance curve, with 95 percent of the students achieving a level of academic excellence that only 20 percent of the students achieved under the regular school system and the Master's Academy has been ranked among top performing academies by several rating agencies over the years. Academic excellence can, therefore, be achieved by the new system, which in addition and more dominantly develops the creative and innovative aspects of the Learner, making him/her employable and future-ready.
- The Master's Academy and College is a research and development school, which built the PL program over the first 10 years since 1997 and over the next 10 years has built tools and systems by which the program can be transferred to the rest of the world, such as has been done in Brazil, Spain and some countries in Africa including Nigeria, Uganda and South Africa. The tools include teacher training programs, technical tools and software applications.
- The challenge facing Africa's education system is two-fold. Firstly, Africa's high population growth rate is wiping out gains from strong GDP growth resulting in tighter budgets for education and a massive uneducated yet youthful population. Secondly, education systems are based on the 1st Industrial Age and colonial era and are therefore obsolete in the current 4th industrial era in which knowledge is doubling at an unprecedented rate.
- The 1st Industrial Age education systems are characterized by rote learning and teaching basic competencies of numeracy and literacy, with exam-writing as the main assessment of academic excellence, determined by entry into prestigious universities, which have hardly produced innovators or creators needed to solve current and future problems. The current education system in Uganda does not prepare students for the life after school, for work or for the world of tomorrow.
- Reforming the education system remains difficult all over the world, as demonstrated by the failure of the USA's "*No Child Should Be Left Behind*" campaign, mainly because efforts often aim at the wrong target – Improving parts of an obsolete system instead of transforming it.
- Transformation of the education system requires envisioning the future. This then forms the link between the current and future systems. Transformation of the education system in Africa by 2040, therefore, will require a compelling vision of the future. Pulling that future into the "now" will thus require imaginal leaders: people that can see the future and have the ability to bring that future into the "now", by creating obsolescence.
- Transformation can be kick started by building prototypes, and establishing a system by which the prototype can be grown and scaled. Prototype schools that demonstrate Profound Learning are being adopted in Uganda and the Masters tools and systems can be used to multiply these schools throughout the country.
- Uganda has the opportunity to render obsolete the education system from the colonial era by investing into the development of a new system for the future.

4.3 Address by Host of CASTLE Conference, First Lady and Minister of Education



The Chief Host of the conference, Hon. Janet Kataaha Museveni thanked Dr. Tom Rudmik for an illuminating presentation which served as a wakeup call to all educationists by highlighting the challenges with current education system and the real possibility of transforming it with a tried and tested model of Profound Learning.

The First Lady welcomed participants to the conference and commended the work of CASTLE Think Tank, highlighting that the conference provided an opportunity to reposition Uganda's education system and prepare learners for a rapidly changing world.

She echoed the vision of the Ministry of Education Sports for Education in Uganda, as one for equality in access, relevant in terms of quality, equitable and effective. She observed that while government had recorded notable achievements with regard to access and equity, there was significant effort needed to improve quality and therefore called on delegates to actively deliberate on these issues and looked forward to the outcome of the conference and the workshop that preceded it.

4.4 Address by Chief Guest and Official Launch of Castle



The Chief Guest, Rt. Hon. Dr. Ruhakana Rugunda, expressed gratitude to CASTLE for convening a timely conference, noting that sustainable transformation of the country, which must partly be done through delivery of quality education, is one of the four main pillars of the National Resistance Movement (NRM) Government.

He underscored the importance of education in unlocking the potential of young people and emphasized the need therefore, of a system that imparts skills to address common problems, and fosters innovation. Rt. Hon. Dr. Ruhakana Rugunda recalled the motivation behind the introduction of UPE in Uganda and highlighted the achievement of countrywide access to primary education, but also pointed out the challenges that remain, including insufficient infrastructure and human resource to manage the swell in enrolment, which have negatively impacted the quality of education.

Rt. Hon. Dr. Rugunda therefore, hoped for a roadmap on how to deliver an education system that addresses the issue of quality and expressed confidence that the discussions at the conference and ideas brought forth through the CASTLE Think Tank would energize and shape the education and other sectors going forward.

Finally, Rt. Hon. Dr. Rugunda officially launched CASTLE Think Tank.

5. BREAKOUT SESSIONS

The conference held four breakout sessions on the following topics:

- Integrating Values into the Curriculum
- Imaginal Learning Experiences
- How Children Learn: Maximizing Learning from Birth to Pre-teen Years
- Robotics as a Tool for Enhanced Science Education

5.1 Presentation on Breakout Group II Session on Imaginal Learning Experiences

5.1.1 The session on Imaginal Learning (IL), hinged on the presentation by Dr. Tom Rudmik on the Master's Academy education model. The session featured two presentations on the experience of implementing IL in two schools in Uganda, one in a rural setting and another in an urban setting. Imaginal or Profound Learning (PL) takes the form of individualized, self-paced and goal setting learning covering school subjects, including entrepreneurship which is generally not included in the regular national curriculum. PL is learner-centric, non-test-score-based, and promotes learning by doing and critical thinking, covering the national curriculum.

5.1.2 St Paul Investments Group of Schools has started to pilot a PL approach to teaching the National curriculum in a rural, agriculture-based community. The Group started out by training teachers, designed a PL Scheme, and created a vision and learning map from selected learning topics, the first of which related to infectious diseases and the environment. The PL education format has proved to be effective following an evaluation exercise, which showed improvement in student scores from an average of 45 to 72 percent.

5.1.3 Vine International Christian Academy (VICA) has also piloted a PL approach to the Accelerated Christian Education (ACE) curriculum covering Primary and Secondary levels, in an urban setting. In VICA's experience, the teachers welcomed the concept of PL and as with St Paul Schools, started out with project execution, which the learners have taken up with notable creativity and enthusiasm. Initial observations have indicated that learning had deepened.

5.2 Discussion of Breakout Group II Session Presentation

5.2.1 Delegates requested for more information on PL. Specifically, they needed to know whether learners are examined, whether learners follow the national curriculum, if there is a place where teachers can be trained on PL and generally where they could find more information on the concept of PL.

It was reiterated that under the PL approach is not dependent on a particular curriculum but is a method of delivery that can be applied to any. Assessment takes place however without emphasis on exam writing. Masters Academy will be facilitating teacher training for the early adopter schools; more information on PL could be found on the Master's Academy and College website as well as the Imaginal Education website.

6. PANEL DISCUSSION 1

Journalist and Executive Director of Wizarts Foundation, a not-for-profit organization with a vision to transform media to impact society, **Mr. Gabriel Iguma**, chaired the first of two conference panel discussions, which had the highlights below.

6.1 Quoting the OECD, which states that *"If education in SSA countries does not register radical improvement, it will take 1802 years for the region to catch up with the rest of the world"*, the Chair asked what the immediate focus areas to kick start the required improvement Africa's education were.

The panel identified the need for African leaders to make the bold decision to transform the education system and appoint champions to lead and implement the transformation.

6.2 Observing that technology in Africa remains relatively costly and to some extent inaccessible, the Chair asked how the continent could harness it to transform the education sector.

The panel pointed out that the cost of technology goes down with advancement and as a result Africa can benefit from accessing slightly older technologies at lower cost. In addition, there is need to motivate technology use by creating eco-systems, learning experiences and safe places that familiarize people with technology.

6.3 Regarding learning assessment indicators, the Chair sought to find out what would help student learning in a futuristic setting.

The Panel guided that human interaction remains critical for student learning and development and while the 4IR is internet led with a high degree of digitalization, technology should be used to elevate learning as an enhancer rather than a replacement of teaching techniques.

6.4 Highlighting Uganda’s need for a productive human resource, the chair asked what changes should be made to the education system for it to prepare productive learners.

The Panel highlighted the need to re-design current curricula to impart futuristic skills such as critical thinking and innovation. The panel also observed that the problem with Uganda’s current curricula is well documented in several sector white papers and strategic plans and, therefore the onus remains with sector stakeholders to implement the required changes. The panel expressed hope that the inaugural CASTLE conference would be rooted in execution of the resolutions reached.

7. SESSION V PRESENTATIONS

7.1 Future of Education in Light of Changes in Work and Industry

Dr. James Magara made the presentation on the “*Future of Education in light of Changes in Work and Industry*”, which had the following highlights:

- He recalled the definition of education, earlier shared, as the preparation for life and work. In light of the future, therefore, it is imperative to think about how the young generation is being prepared for life and work in the future in all its different dimensions. He quoted Proverbs 22:3 where King Solomon stated that, “*A prudent mind foresees danger and takes precautions. The simpleton goes on blindly and suffers the consequences*”.
- There are both opportunities and challenges that will come with the forecasted burgeoning of the Africa’s population. It is a critical time to address the challenges of the current education system, in order prepare the future of the millions of young school going children in the continent today, and secure Africa’s future prospects.
- While commentary on what the future looks like may appear to be far-fetched, the dawn of that future will arrive faster than can be anticipated, as proven by the launch of mobile telecommunication companies in Uganda in 1995, when only 2 years before, it seemed inconceivable for mobile phones to come into operation in Africa. Therefore, attention must be paid to the rapid pace of change and action taken fast. Robotics technology, for instance, promises to change the world of work and is advanced tremendously requiring a new hard look at the jobs we are preparing our learners for.
- Africa needs to prepare to embrace this technology, in order to meet its aspiration to industrialize and, the first course of action should be to produce people who are employable. The 2018 global youth survey by Deloitte Global covering 45 countries points to the public sector having capacity to employ only about 20 percent of the youth population, yet the current education system in Africa prepares learners to work largely in the public sector. Graduates therefore, have often had to re-train or work in different sectors than their line of training, in order to cope in the world of work.
- Four key sets of skills required to cope with the advancing change in the world of work, which should therefore be incorporated in the education system to produce future-ready learners include:
 - a. Basic skills such as numeracy and literacy. This implies that in transforming the education system, some training will remain unchanged;
 - b. Soft skills such as communication, collaboration, leadership and time

management, among others. Given that the future is creativity rather than knowledge-driven, these are critical skills required in future-ready learners, which unfortunately the current education system in Africa does not impart;

- c. Technical skills such as computer programming and having knowledge and capability to perform tasks specific to a job;
 - d. Entrepreneurship skills that foster initiative, innovation, creativity and industriousness and these are unfortunately significantly missing in the current education system.
- There are various approaches available to transforming learning and these include; practical and field-based learning, online / distance learning, data interpretation, project-based learning and non-exam-based assessment, among others.

7.2 Education for Social Change

The Founder of the Institute for National Transformation, Professor Vincent Anigbogu, made the presentation on “*Education for Social Change*”³, which had the following highlights:

- University education has been forced through changes in structure and functionality in order to remain socially relevant and competitive and the African education system must undergo such pragmatic and issues-relevant reformation if it is to adequately prepare Africans to be ready for the threats and opportunities of the future.
- Tertiary education is changing globally in a fundamental way, moving from; the Medieval era or the First-Generation University (1GU) model, in which education aimed to defend the truth; to the Humboldt or the Second-Generation era (2GU) model, in which education was designed to discover nature; and, now into the modern Stanford University, MIT, and University of Cambridge era or the Third Generation University (3GU) model, in which education is intended to have social Impact.
- The 1GU model has its origin in the middle ages when Christianity was adopted by European nations, and schools were started, located near important churches/ monasteries, with Latin as the language of instruction. The schools eventually became the forerunners of the first universities, instructing sciences, theology, and the liberal arts through oratory, argumentation, rationalism, and promotion of the sovereignty of dialectics, which remained the model for future universities. The 1GUs were not armed for the conquest of science yet this approach to education remains popular in Africa, where outcomes from many annual lecture serials, workshops and conferences are hardly converted into tangible policies and products.
- The 2GU model was born out of the emergence of eminent mathematicians who led the establishment of applied sciences and Special Schools outside the university, thus reducing the influence of the Church over universities. The 2GU model focused on research carried out according to the modern methods of rationality, experimentation, argumentation, and transparency, allowing for verification, expansion, and authentication of results by external reviewers, published in specialized journals or books.
- The 2nd generation universities, however, eventually declined on account of limited funds to conduct cutting-edge scientific research, explosion in student numbers

3 Presentation on “Education for Social Change” attached as **Annex V**

which led to mass education and dilution of quality research and the creation of government research establishments for research and development from the 1930s such as NASA, among others. The decline of 2GU gave way to a new 3GU model.

- The 3GU model is demonstrated by the “Cambridge Phenomenon”, which represents the transformation of a community arising out of market-oriented academic institutions established in that community. The phenomenon is exemplified by the transformation of Cambridge-shire from one of the poorest counties to the second richest in the UK, due to a strong interactive relationship with the University of Cambridge. Similar developments occurred in the USA around the University of Stanford and MIT;
- In all cases, there were three interacting developments at 3GUs that led to community transformation, which included: development of a community of high-tech enterprises; modernization of the university structure to finance would-be leading-edge science-technology-innovation research (STIs); and, development of techno-starters’ facilities, supported by the community universities. As other nations discovered the large economic and employment benefits of market-orientated academic institutions, governments started to support their universities towards this trend;
- In conclusion, there are complexities of issues facing Africa in terms of threats and opportunities. Africans are demanding for education that can develop imaginal leaders – that will spearhead innovation in industry and government leading to national transformation. Entrepreneurship is the spirit of today’s global climate. African governments and universities should deliberately move towards the development of innovation ecosystems for the incubation of ideas to full bloom.

7.3 Educational Curricula in light of Global Changes

Member of the Education Service Commission, Mrs. Rose Izizinga made the presentation on “*Educational Curricula in light of Global Changes*”, which had the following highlights:

- African education is based on classroom confinement, mass learning, test scores, teacher-centric and rote learning systems founded in the first Industrial Age. While most teachers in the current system are determined to hang onto old teaching techniques, their current learners - the 21st Century learners, are creative, knowledge-hungry and visionary, resulting in loss of learner creativity between the start of school and adulthood.
- It is imperative to imagine the future and prepare learners for what jobs will require then. Future jobs will require creativity, initiative, critical thinking, analysis and problem-solving abilities. In contrast, Africa’s education system pays attention largely to academic higher education achievement and employment, with minimal focus on skills development and entrepreneurship.
- The 21st Century curricula must encompass an inter-multi-disciplinary linkage between knowledge, skills and character development and must shift to an inquiry-based and problem-solving model, away from the traditional class model. In line with this reformed curriculum, the 21st Century teacher must be an adaptor, a communicator, a leader, visionary, and risk taker.
- In order to navigate the uncertainty and fast-paced global changes characterizing the 21st Century, creativity, innovation and critical thinking are imperative. Africa must rethink, re-engineer and redesign an appropriate curriculum for teachers and the learners of the future.

7.4 Skills Education for African Futures

The Commissioner for Teacher Education in the Ministry of Finance, Ms. Loy Muhwezi made the presentation of “*Skills Education for African Futures*”⁴, which had the following highlights:

- The World, Africa and Uganda’s population is forecast to grow substantially over the next 30 years with most of the growth projected to come from African countries. Further, Africa remains the most youthful continent with 60-70 percent of its population aged below 25 years. The demographic swell and structure presents Africa both with an opportunity if harnessed, and challenges, the biggest of which is unemployment, largely caused by a defective education system.
- Africa’s future aspirations enshrined in Agenda 2063 remain for a prosperous continent, based on inclusive growth and sustainable development, and for development which is people-driven, relying on the potential of African people. The education system therefore, should be able to deliver on efficient skills, knowledge, and attitudes. However the current education system in Africa has a number of challenges, which include: fragmentation in governance and oversight systems, obsolete and traditional methods of training and lack of linkages between the employers and the training institutions, among others.
- As a result, the current education system has negatively impacted Africa’s social and economic progression, resulting from; low productivity and competitiveness, under and unemployment, high incidence of poverty and rising insecurity.
- In an effort to address the skills challenge in Uganda, in January 2019 cabinet approved a policy to guide skills training in the country. The Policy recommends an employer-led system, which is a new approach to skills development in Uganda. This flexible skills system can be an alternative for those learners who may have dropped out of school in the lower levels. Further, in line with addressing the skills challenge, a review of existing policies and laws is required.

7.5 Trends in Distance Learning

The Director of the Institute of Open, Distance and e-Learning at Makerere University, Dr. Jessica Aguti made the presentation on “*Trends in Distance Learning*”⁵, which had the following highlights:

- Global predictions on populations point to significant growth in Africa’s population over the next 30 years. Regarding Uganda’s education system, while school enrolments have increased, transition rates are low, quality remains a challenge and a selective system reinforces inequalities and disparities across gender, regions and economic status. Regarding tertiary education, government spending remains low at 5 percent of Gross National Product, with high dependence on foreign aid.
- Given the challenges of the current education system, tight government budgets and explosive population growth rates, distance education (ODEL), which takes many forms including E-Learning, flexible learning, blended learning, distance education, open learning, provides a realistic alternative to the provision of education services. The basic characteristics of an ODeL system include separation of teachers and

4 Presentation on “Skills Education for African Futures” attached as **Annex VI**

5 Presentation on “Trends in Distance Learning” attached as **Annex VII**

learners and extensive use of technology. Use of ODeL systems increases access, enhances equity, increases cost efficiency, provides flexibility and has potential to address challenges of quality.

- In Uganda, ODeL has the potential to increase access to university by; catering to the bulge from UPE and USE, accommodating adults returning to school and to generally democratize access to higher education. ODeL also has the potential to improve the quality of education at the university by increasing access to high quality learning materials, increasing collaborations and promoting independent, creative and critical thinking. ODeL take up will enable exploitation of the potential of ICT systems available.
- Looking forward, the education and market terrain has changed and so must Uganda. ODeL is an opportunity; however, relevant policies that will support and promote ODeL are needed. Improving access to ICTs, a backbone to ODeL, is critical and requires collaborative approaches. Finally, ODeL providers need to deliberately plan and budget for quality service provision.

8. INFORMATION AND COMMUNICATION TECHNOLOGY: LEAP FROGGING INTO AFRICAN FUTURES

Country Director of Andela, Ms. Jackie Ochola made the presentation on how ICT can propel Africa's leapfrogging into the Future⁶, first defining ICT as a diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. The presentation had the following highlights:

- Key technologies driving the current technology revolution include; Artificial Intelligence (AI), Internet of Things (IoT) which is basically having gadgets speak to each other without human intervention, Block chain which is a technology that enables information to be held and known by all persons at the same time (thus checking forgery), and 3D Printing, Others are: autonomous Vehicles such as drones, Robotics, Virtual Reality as in 3D cinematography, Voice Assistance (which enables the use of gadgets without knowing how to read or write⁰, and Cloud Computing, among others. These technologies will influence how people will live and work in the future.
- Sectors that provide an opportunity for Africa to harness ICT and therefore accelerate the continent's leapfrogging into the future include: unlocking productivity in agriculture, better resource management, increasing efficiency in governance, encouraging healthier lifestyles of the continent's people, increasing access to education through ODeL and increasing surveillance and security by using big data.
- ICT readiness for future opportunities requires Africa to improve universal digital access through the provision of reliable power and Internet infrastructure and regulation and improving affordability. A ready human capital through improvement of the education system to support relevant skills for creation is also required to enable Africa use ICT to leapfrog into the future. Government support to development of technology ecosystems and innovative business will also increase ICT readiness.
- Africa lives in the realm of possibilities and it should therefore dare to dream.

6 Presentation on "ICT: Leapfrogging into African Futures" attached as **Annex VIII**
CASTLE "Education and African Futures" Conference, October 30-31, 2019

9. PANEL DISCUSSION 2

Mr. Nicholas Karyebara, Manager of Program Support at Compassion International - Uganda, a child-advocacy ministry, chaired the second conference panel discussion, which had the highlights below.

9.1 The Chair asked panelists the one thing they would re-emphasize regarding what needs to be done to transform the education system going forward.

The panel identified the need to ascertain the potential that lies in Africa's young generation, addition of computer programming to numeracy and literacy as basic skills for the 21st century, transformation of the education system to prioritize student ownership of the learning process, need for multi-sectoral collaboration to transform the sector, and incorporation of skills and entrepreneurial development in the curricula from an early age.

9.2 The Chair sought to find out how Africa could increase efficiency from the current education system as the region builds and transitions to a new futuristic oriented system.

The panel proposed enhancement of parental role in the education system through addressing parent disengagement from responsibility in the education process, and re-activating government monitoring of teachers.

9.3 Concerning quality concerns in UPE, the Chair sought to find out how the good in the program could be harnessed.

The Panel identified need to increase monitoring and motivate positive teacher and learner attitudes and address parent absenteeism.

9.4 On harnessing new trends in education, the Chair asked how ODeL could be used at the lower levels of education to address issues of access and quality, given that at these levels students are less self-driven.

Panelists advised that the spectrum of available ODeL delivery technologies is wide, ranging from radios to mobile IT gadgets and therefore, there is need to take advantage of technologies available in communities. There also is potential to improve ODeL by packaging it appropriately for target group.

10. CLOSING SESSION

10.1 The Journey into the Future of Education

10.1.1 Dr. Tom Rudmik made the presentation on "The Journey into the Future of Education", which was a continuation from the keynote address, and laid out the steps to be taken to transform education in Africa by 2030, with the following highlights:

- While there is great knowledge that Africa's education system needs transformation, it is more difficult to identify how to cause and implement the transformation. Transfer of knowhow is more challenging than its creation. Mental models are fixed and difficult to shift, resulting in policy makers being more inclined to maintain the status quo rather than venture out creatively in designing curricula for Africa's future.
- The Masters Organization, has over the last 20 years conducted research and development, in designing tools and systems that transform teacher behavior and

professional development and elevate learning, with tested potential to support the transformation of Africa's education systems. Masters has also developed strategies with industrial partners on how to activate innovation and people development, not only in the education but also across different sectors. The Masters PL program mission is to prepare students to be future-ready, and it takes two forms; Master Learners for the younger students and Imaginal Leaders as students transition through senior/junior high.

- In order to transform the education system, Uganda and Africa can follow the following steps;
 - a. Have a vision of what the education system of the future should look like.
 - b. Render obsolete the colonial era education system, and embrace a new system by creating obsolescence.
 - c. Change underlying structure of the system (shift teacher – student roles and aim to increase student ownership of the learning process), as well as the mental structure.
 - d. Design a rapid prototype of a competency-based and localized curriculum as well as establish prototype schools and support their take-up throughout the country.
 - e. Create learning banks from the government's curricula. A learning bank is a translation of what student learning outcomes are intended to be, with statements that are student-friendly. Students use it to self-assess where they are in their learning.
 - f. Equip teachers with tools to design experiences or learning adventures, which teach the various subjects, such as science, mathematics, and writing, among others, in a fun and less stressful environment.

10.1.2 The Executive Director of the National Curriculum Development Center (NCDC), Ms. Grace Baguma made some observations on the presentation by Dr. Rudmik on the *“Journey into Future Education”*, highlighted below;

- Government through the NCDC has made an effort to address issues with the curricula, starting with the development of a competence-based curriculum for lower secondary education, although it is yet to be rolled out and there are challenges regarding its proper translation into a learning bank.
- Further, there are systemic issues that also need to be addressed going forward, such as revision of text books and teaching materials and the fixed mindset of both teachers and parents on test-scores.
- Going forward, NCDC will endeavor to secure the required technical assistance to achieve complete transformation of the Uganda's education curricula into one that produces future-ready learners. Interestingly, there are schools in Uganda, which are currently promoting project and inquiry-based learning, even using the current curricula.

10.2 Remarks from the Institute for National Transformation

Professor Vincent Anigbogu delivered the closing remarks on behalf of the INT. He thanked First Lady, Hon. Janet Kataaha Museveni for her support to the inaugural CASTLE conference and underscored INT's curriculum emphasis on innovation, inspired by President Yoweri Museveni. He commended the birthing of CASTLE Think Tank out of INT – Uganda, under the focused and able stewardship of Dr. James Magara, and professed that CASTLE was destined to transform Africa, with Uganda as the incubator. He thanked Dr. Tom Rudmik for supporting CASTLE and promised that the Think Tank would promote Imaginal Leadership with the aim to transform education in Africa by 2030. Professor Anigbogu then called on stakeholders to support the CASTLE Initiative both spiritually and financially.

10.3 Chairman's Statement on Conference

Professor Joseph Oonyu applauded the Honorable Minister of Education, Hon. Janet Kataaha Museveni, for her passion and support, not only for the conference but also for the education sector in general. He reported that the conference enabled candid deliberation on various topics guided by the set objectives and then summarized the main conference conclusions as follows:

- Africa's education systems remain hinged on producing labor required in the colonial era and are also premised on the 1st industrial revolution, while the 4th Industrial Revolution is underway.
- The systems are largely teacher-centered, with emphasis on test scores, which does not foster actual learning and is out of sync with future labor demands.
- Nonetheless, Africa has big opportunities to contribute and even drive the future; however a re-orientation of the education system is required to realize the opportunities.
- There's need to re-engineer the education system to focus on developing creativity, critical thinking and innovation, among other skills. In line with this effort, Professor Oonyu congratulated the NCDC on revising the curriculum for lower secondary education to emphasize these skills.
- The next steps for Uganda and Africa to transform the education sector include:
 - a. Identification of critical leaders to lead the transformation journey;
 - b. Appointment and training of champions for this cause;
 - c. Support to establishment of prototype schools; and,
 - d. Motivation of the scaling up of these schools throughout the country;
 - e. Alongside these steps, promotion of skilling and ODeL will create opportunities to increase access even for those individuals who are out of school;
 - f. Finally, harness technology as an enabler that will leapfrog Africa's capacity to meet future human resource demands.

In conclusion, Professor Oonyu offered CASTLE Think Tank as a platform for further conversation on Africa's futures education, given its connection with International Universities, which enables it to conduct studies that should inform policy and the practice of education in Uganda.

10.4 CASTLE Chairman's Closing Remarks

Dr. James Magara briefed on CASTLE's selection of education as its inaugural cause and thanked the First Lady and Ministry of Education and Sports Officials for their support to the cause and the conference. He expressed hope that the conference was a positive engagement especially for the Ministry of Education and Sports, and thanked the Keynote Speaker, Dr. Tom Rudmik for sharing his experience with establishing the Master's Academy, which has sparked off a much needed thought process on Uganda's education sector. He relayed CASTLE's commitment to work with the Ministry of Education and Sports to transform the education sector going forward, as well as with other Ministries and Government Agencies when new causes are taken up. He offered that the detailed report would be shared to ensure a cascade of the ideas generated during the conference.

10.5 Closing Speech by Chief Host

In her closing remarks, **the Chief Host of the Conference, First Lady and Honorable Minister of Education and Sports Hon. Janet Kataaha Museveni**, congratulated delegates on concluding two days of engagement, which she hoped provided new inspiration, as the challenge for Africa's education sector was daunting. Mrs. Museveni expressed belief that Africa's dawn was coming and the continent had what it takes, beyond natural resource endowment, to end poverty. She expressed pleasure at the effort of transformation already underway in the education sector and reassured delegates of her desire for the Ministry of Education and Sports to produce a futuristic human resource. The Honorable Minister looked forward to receiving the conference report, indicating that the observations and proposals therein would inform education sector reviews going forward.

RECOMMENDATIONS

AS PER BY THE PRESENTATIONS, SPEECHES AND DISCUSSIONS

PRESENTATION	PRESENTER	RECOMMENDATION(S)
Education and Africa 2063	Dr. James Magara	Africa should seize the chance to participate and benefit from the 4IR through Learning and mastering various components and 4IR technologies therein
Current State of Education on the Continent	Ms. Alero Ayida-Otobo	Need for young people to participate in the conversation of creating future they deserve which belongs to them
Current State of Education in Uganda	Mr. Alex Kakooza – P.S MoES	Time is now to develop theories relevant to our situation emphasizing training of learners in Higher education for skills of tomorrow. More effort should be put to encouraging youth to enroll in TVET
Keynote Address: “Transforming Education in Africa by 2030”	Dr. Tom Rudmik	Emphasis on becoming “Imaginal leaders” important for future-ready learning experiences through simulation based and other learning approaches
Address by Chief Host of the conference	Hon. Janet K. Museveni	While Government has registered notable achievements with regard to access and equity, there was significant effort needed to improve quality
Address by Chief Guest and Official Launch of CASTLE	Rt. Hon. Dr. Ruhakana Rugunda	Need for a roadmap on how to deliver an education system that addresses the issue of quality.
Future of Education in Light of Changes in Work and Industry	Dr. James Magara	Challenged audience to imagine the implication of training people today for work in industries of the future, many of which will be technologically driven.

PRESENTATION	PRESENTER	RECOMMENDATION(S)
Education for Social Change	Prof. Vincent Anigbogu	Recommended emphasis to be placed on 3 rd generation University Model (3GU) aka "Cambridge Phenomenon" as education with inter-multi-disciplinary linkage between Knowledge, Skills and Attitudes as well as Character Development Shifting to inquiry based, problem-solving model away from traditional class model
Educational Curricula in light of Global Changes	Ms. Rose Izizinga	21 st Century Learner should be a self-directed; a life-long, creative and visionary learner
Skills Education for African Futures	Ms. Loy Muhwezi	Education system employed should be able to deliver efficient Knowledge, Skills, Attitudes to learners which are altogether important in preparing African population appropriately for work
Trends in Distance Learning	Dr. Jessica Aguti	Distance Learning is a necessary alternative to absorb many who drop out from the education path so as to cut back on the wastage of the education pipeline making a case for MOOCs. (Massive Open Online Courses).
Information and Communication Technology: Leapfrogging into African Futures	Ms. Jackie Ochola	Universal Digitization, Increased Government Support, and viable systems are necessities to be ICT- Ready and the necessity of inculcating coding in early learning experiences to complement literacy and numeracy as basics skills from a young age.
The Journey into the Future of Education	Dr. Tom Rudmik	Future learning will take a digital revolution; with more personalization of the learning experience; and compressing of the learning time. Strategic partnerships are very critical aspect for increasing impact of Imaginal education

ANNEX I: CONFERENCE PROGRAM

TIME	TOPIC	SPEAKER/MODERATOR
DAY ONE: WEDNESDAY, 30TH OCTOBER 2019		
7.00 a.m. - 8.30 a.m.	Arrival and registration	Secretariat
MCs for the Day: Mr. Paul Bukonya Ms. Harriet O'City <i>IT Specialist & Banker</i> <i>Executive Director, INT</i>		
SESSION I CHAIR: Professor Joseph Oonyu <i>Chairman of the Conference & Education Expert and Consultant</i>		
8.30 a.m. - 8.45 a.m.	Welcome Remarks & Opening Prayer by Mr. Peter Oumo <i>Economic Advisor, Embassy of Ireland</i>	MCs and Conference Chairman
8.45 a.m. - 9.00 a.m.	Welcome from CASTLE, INT, MOE	CASTLE, INT, MOE
9.00 a.m. - 9.20 a.m.	Education and Africa 2063	Dr. James Magara <i>CASTLE Board Chairman, and Co- Founder, Vine Academy</i>
9.30 a.m. - 9.50 a.m.	Current State of Education on the Continent	Ms. Alero Ayida-Otobo <i>Founder, Incubator Africa Co-Founder: Teach For Nigeria; Education Reform & Innovation Team (ERIT); and Imaginal Education initiative (IEI)</i>
10.00 a.m. -10.20 a.m.	Current State of Education in Uganda	Mr. Alex Kakoza <i>Permanent Secretary Ministry of Education</i>
10.30 a.m.- 10.50 a.m.	Policy Frameworks for Attaining African Educational Goals	Mr. Brighton Barugahare <i>Assistant Commissioner, Policy Ministry of Education</i>
11.00 a.m. - 11.30 a.m.	NETWORKING TEA BREAK	
OFFICIAL OPENING SESSION		
SESSION II CHAIR: Professor Joseph Oonyu <i>Chairman of the Conference & Education Expert and Consultant</i>		
11.30 a.m. - 11.45 p.m.	Anthems and Welcoming Chief Guest	MCs
11.45 a.m. - 12.45 p.m.	Key Note Address: <i>Transforming Education in Africa by 2030</i>	Dr. Tom Rudmik <i>Founder, Master's Academy and College Calgary, Canada</i>
12.45 p.m. - 1.15 p.m.	Address by Chief Guest and official opening of the Conference	Dr. Ruhakana Rugunda <i>Rt. Hon. Prime Minister, Republic of Uganda</i>
1.15 p.m. – 1.30 p.m.	Official Launch of CASTLE	Chief Guest
1.30 P.M. - 2.30 P.M.	NETWORKING LUNCH BREAK	

SESSION III: CONCURRENT SESSIONS				
2.30 p.m. - 3.30 p.m.	<p align="center">BREAKOUT HALL 1</p> <p align="center">INTEGRATING VALUES INTO THE CURRICULUM</p> <p align="center">Chairman: Mr. Davies Samuel Hiire <i>Founder and Director, Haven of Hope</i></p> <p align="center">Facilitator: Ms. Jackie Lwande <i>Director: Shekinah Education Services, Limited.</i></p> <p align="center">BREAKOUT HALL 2</p> <p align="center">IMAGINAL LEARNING EXPERIENCES</p> <p align="center">Chairman: Mrs. Lorna Magara <i>Chairperson, Makerere University Council & Co-Founder Vine Academy</i></p> <p align="center">Facilitator: Dr. Monica Musenero <i>Director, St. Paul Investments Group of Schools</i></p> <p align="center">BREAKOUT HALL 3</p> <p align="center">HOW CHILDREN LEARN: MAXIMIZING LEARNING FROM BIRTH TO PRE-TEEN YEARS.</p> <p align="center">Chairman: Mrs. Barbara Buyondo <i>Director, Victorious Education Services</i></p> <p align="center">Facilitator: Mrs. Audrey Dralega <i>Director and Education Consultant, People and Potential Consultancy</i></p> <p align="center">BREAKOUT HALL 4</p> <p align="center">ROBOTICS AS A TOOL FOR ENHANCED SCIENCE EDUCATION</p> <p align="center">Chairman: Mr. Robert Mutyaba <i>IT Specialist and CASTLE Board Member</i></p> <p align="center">Facilitator: Ms. Rosebella Nsita <i>Partnerships & Community Manager, Fundi Bots</i></p>			
3.45 p.m. - 4.45 p.m.	<p align="center">SESSION IV</p> <p align="center">PANEL DISCUSSION Moderator: Gabriel Iguma <i>Journalist & Executive Director, Wizarts Foundation</i></p>			
4.45 p.m. - 5.00 p.m.	Announcements and Close	MCs		
5.00 pm	NETWORKING TEA			
DAY TWO: THURSDAY, 31ST OCTOBER 2019				
7.30 a.m. - 8.30 a.m.	Arrival and registration	Administration		
<p align="center">MCs for the Day:</p> <table border="0" style="width: 100%;"> <tr> <td align="center" style="width: 50%;">Mr. Elijah Omagor <i>Advocate & Executive Director of P-SAVE</i></td> <td align="center" style="width: 50%;">Ms. Christine Alupo <i>Director, Board Affairs Bank of Uganda & member of CASTLE Board</i></td> </tr> </table>			Mr. Elijah Omagor <i>Advocate & Executive Director of P-SAVE</i>	Ms. Christine Alupo <i>Director, Board Affairs Bank of Uganda & member of CASTLE Board</i>
Mr. Elijah Omagor <i>Advocate & Executive Director of P-SAVE</i>	Ms. Christine Alupo <i>Director, Board Affairs Bank of Uganda & member of CASTLE Board</i>			
<p align="center">SESSION V CHAIR: Dr. Philip Igbinjesu <i>Human Resource Consultant & Member of Advisory Board, CASTLE</i></p>				
8.30 a.m. - 8.40 a.m.	Prayer and Welcome Remarks	MCs		
8.40 a.m. - 9.00 a.m.	The Future of Education in Light of Changes in Work and Industry	Dr. James Magara <i>CASTLE Board Chairman & Co-Founder, Vine Academy</i>		
9.00 a.m. - 9.20 a. m.	Education for Social Change	Professor Vincent Anigbogu <i>Director General, Institute for National Transformation, Lagos Nigeria</i>		
9.30 a.m. - 9.50 a.m.	Educational Curricula in Light of Global Changes	Ms. Rose Izizinga <i>Member Education Service Commission</i>		
10.00 a.m. - 10.20 a.m.	Skills Education For African Futures	Mrs. Loy Muhwezi <i>Commissioner, Teacher Education Ministry of Education</i>		

10.30 a.m.- 10.50 a.m.	Trends in Distance Learning	Dr. Jessica Aguti <i>Director, Institute of Open, Distance and e Learning, Makerere University</i>
11.00 a.m. - 11.30 a.m.	NETWORKING TEA BREAK	
SESSION VI CHAIR: Mr. Newton Baloyi <i>Director, NBI Quantity Surveyors & CASTLE Advisory Board Member</i>		
11.30 a.m. – 11.50 a.m.	Information And Communication Technology: Leap Frogging into African Futures	Ms. Jackie Ochola <i>Country Director, Andela</i>
12.00 p.m. – 1.00 p.m.	SESSION VII PANEL DISCUSSION Moderator: Mr. Nicholas Kalyebara <i>Manager of Program Support, Compassion International - Uganda</i>	
1.00 P.M. - 2.30 P.M.	NETWORKING LUNCH BREAK	
CLOSING SESSION		
SESSION VII CHAIR: Hon. Dr. Benson Obua Ogwal <i>Leadership Coach/Consultant</i>		
2.30 p.m. - 3.30 p.m.	The Journey into the Future of Education	Dr. Tom Rudmik <i>Founder, Master's Academy and College Calgary, Canada</i>
3.45 p.m. - 4.00 p.m.	Remarks from the Institute for National Transformation	Professor Vincent Anigbogu <i>Director General, Institute for National Transformation, Lagos Nigeria</i>
4.00 p.m. – 4.20 p.m.	Chairman's Statement on Conference	Professor Joseph Oonyu <i>Chairman of the Conference & Education Expert and Consultant</i>
4.20 p.m. – 4.30 p.m.	CASTLE Chairman's Closing Remarks	Dr. James Magara <i>CASTLE Board Chairman, and Co-Founder, Vine Academy</i>
4.30 p.m. – 5.00 p.m.	Closing Speech by Host	Hon. Janet Museveni, <i>First Lady and Minister of Education and Sports</i>
5.00 pm	NETWORKING TEA	

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