GLOBAL E-SCHOOLS & COMMUNITIES INITIATIVES 90000 10000



ANNUAL REPORT



GESCI 2018 Annual Report: The Year That Was

Acronyms and Abbreviations

ADEA Association for the Development of Education in Africa
ADSI African Digital Schools Initiative
AUC African Union Commission
BOM Board of Management
CESA Continental Education Strategy for Africa
DSD Digital School of Distinction

ENEA Ecole Numérique d'Excellence Africaine

EWG Expert Working Group

FAWE Forum for African Women Educationalists

GDSD GESCI Digital Schools of Distinction

GESCI Global E-Schools and Communities Initiative
 ICT Information Communication Technologies
 IGAD Intergovernmental Authority for Development
 IICBA International Institute for Capacity Building in Africa

JP IK Portuguese business group, with an international presence and which primarily operates in

the Information and Communication Technologies (ICT) sector

KC Knowledge CreationKD Knowledge DeepeningMCF Mastercard Foundation

MERL Monitoring, Evaluation, Research and Learning

MOEST Ministry of Education, Science and Technology (Tanzania)

OERs Open Education Resources
PAVEU Pan African Virtual e-University

PC Project Coordinator

PORALG President's Office for Regional and Local Government (Tanzania)

PPG Project Partners Group

PSIPSE Partnership to Strengthen Innovation and Practice in Secondary Education

PTA Parent Teacher Association
RELI Regional Education and Learning
SBC School-Based Coordinator
SST School Support Team

STEM Science, Technology, English and Maths

TL Technology Literacy

TPACK Technological Pedagogical Content Knowledge

TSC Teaching Service Commission (Kenya)

UNHCR United Nations High Commissioner for Refugees

UNESCO United Nations Educational, Scientific and Cultural Organization

Introduction and Overview

In 2018 GESCI continued to implement its mission, vision and programmes and to strengthen its operations and systems. In the 2nd year of implementation of the Strategic Plan 2017 – 2020, "From Vision to Action –Delivering What We Promise" we focused on two main operational streams viz. programme implementation and strategic partnership building for sustainability and scale. With regard to programme implementation GESCI continued to successfully embed its activities in the Ministries of Education and their decentralised structures in Kenya, Tanzania and Côte d'Ivoire in the strategic thematic focus areas of:

- GESCI Digital Schools of Distinction for whole school ICT integration and development
- Teacher professional development and ICT competencies
- ICTs for 21st century learning with a focus on STEM subjects
- ICT-enabled education for children and youth in crisis environments.

The strategic partnership building for sustainability and scale initiatives were underpinned by GESCI's aim to extend its reach and impact to more regions, countries and beneficiaries, and to become more influential in agenda setting on the African continent for educational transformation and development. In doing so, GESCI will continue to fulfil its vision, mission and organisational objectives and remain relevant to its partners and beneficiaries.

During 2018 GESCI refined and crystalised its thematic focus areas and streamlined and aligned its operations for improved efficiency and better outcomes and impact. GESCI also managed to recruit and appoint new staff in key positions such as Partnerships, Programme Design and Resourcing Manager, Monitoring, Evaluation, Research and Learning (MERL) Specialist and Education Specialist, to support its work.

GESCI's donors, partners (AUC, FAWE, IGAD, ADEA, JPIK, Millennium @Edu, mLearning Alliance, Ministries of Education Kenya, Tanzania, Côte d'Ivoire) and beneficiaries (school leadership, School Boards, PTAs, teachers, students) are very important - without their full support and trust, we would not have been able to achieve our organisational and programme objectives in 2018. We are deeply grateful to donors and partners for their guidance, advice, encouragement and financial support which enabled GESCI to operate, grow in capacity and influence, and to implement its programmes in an efficient and effective manner. We also highly appreciate the contributions, enthusiasm, openness, commitment and trust with which our beneficiaries across Kenya, Tanzania and Côte d'Ivoire engaged with and supported us. This can never be taken for granted. We thank Sida for its essential core support which enabled us to provide the necessary supports, expertise and administrative services to programme and project delivery. We highly value the support from especially the Mastercard Foundation (MCF) for programme funding for ADSI.

As stated in the GESCI Strategic Plan 2017 – 2020, "From Vision to Action –Delivering What We Promise", GESCI envisages a world where the widespread use and integration of digital

technologies will transform learning and realise higher levels of equality and inclusiveness. It is a world where ICTs are efficiently used to support governments and communities for inter alia: equitable access to a high quality education in formal and informal learning environments; ICT competency skills for better teaching and learning to improve student achievement and acquisition of 21st century skills; digital skills development for youth employment and entrepreneurship to equip young people with the technology-driven skills and capabilities required for self-employment and the job market; securing gender equality in participation and achievement in education and training; Multi-level leadership competencies at Government levels for planning inclusive and sustainable social and economic development; and scaling-up learning opportunities in community- based settings for social transformation.

GESCI Vision

To be a global thought leader and expert organization in supporting the utilization of new technologies to transform learning and empower individuals and communities with competencies and skills for inclusive and sustainable development. GESCI recognises that, in today's world, knowledge is a key engine of growth, innovation and overall socio-economic development. A quality and equitable education is a major pillar of a knowledge society.



GESCI Mission

To work with governments and partners in providing strategic supports to develop and implement models of good ICT-based practice for high-quality education & training and to build effective leadership abilities in ICT and Knowledge Society development among Government officials across the Developing world.

In executing its initiatives and plans in 2018, GESCI was guided by its principles and core values of inclusivity, accountability, democratic participation, equal opportunities, non-discrimination, transparency, empowerment and sustainability. In all its operations GESCI has continued to strive to carry out its work ethically, with integrity and with passion and commitment.

Programme Outcomes

The ADSI programme is implemented in partnership with Ministries of Education and their programme implementing agencies, stakeholders and partners at all levels (national, county/district and school). With the joint implementation of the pre-scale model, the programme started taking deeper roots through capacity building, institutionalisation and

sustainability strategies in Kenya, Tanzania and Côte d'Ivoire. At the regional level the African Union Commission (AUC) is involved through the Continental Education Strategy for Africa (CESA) 2016- 2025 Cluster for ICT in Education. Progress of the ADSI implementation is periodically highlighted in the AUC published CESA journal.

The strategies for successful implementation in 2018 focused on:

- Institutionalisation for sustainability which entailed deeper engagement and collaboration with Ministries of Education, Programme Partner Groups (PPGs) & Expert Working Groups (EWGs) at national level and School Support Teams (SST) at County/ Regional level
- Whole school planning for ICT Integration through the school Leadership, School Based Coordinators (SBCs), Science, Technology, English and Mathematics (STEM) teachers and other subject teachers in planned transformation of schools to Digital Schools of Distinction
- School-based Professional Development providing support through School-Based Coordinators with capacity to provide the first line of support in project activities at school level
- A Blended Learning Approach for STEM teachers, and other teachers including faceto-face sessions, online access to quality interactive and practical content through a Learning Management System and classroom observation sessions during ICT Integration practice.



Brief on ADSI in 2018

The preceding year, 2017, provided significant lessons and learnings for our work in 2018 for approaching challenges, shaping strategies, improving processes and practices and adjusting plans. In 2018 our programme activities were geared primarily towards further elaboration and contextualisation of:

- The GESCI Digital Schools of Distinction (GDSD) for whole school ICT integration and development
- Teacher professional development and ICT competencies
- ICTs for 21st century learning with a focus on STEM subjects
- ICT-enabled education for children and youth in crisis environments
- Institutionalisation and sustainability.

Each of the three ADSI countries have different contexts and are also at varying stages of implementation of the ADSI/ENEA programme. Since Kenya is ahead of Tanzania and Côte d'Ivoire in implementation and provides valuable insights, the GESCI programme team have established processes and strategies to facilitate deliberate and continuous cross country sharing to enhance internal learning. Across the 3 countries the programme stakeholders were mainly informed through the Expert Working Groups (EWGs) representing key institutions, workshop/training and stakeholder meetings at county and regional level, Programme Partners Group (PPG) meetings, institutional level meetings, School Support Team (SST) (county / region

and school) meetings and policy forums. Several lessons have emerged that have been used to shape implementation as well as to inform the activities, thinking and priorities of key stakeholders, especially related to policies to facilitate and support ICT integration and the development of digital schools of excellence.

Thematic Focus Area: GESCI Digital Schools of Distinction for whole school ICT integration and development

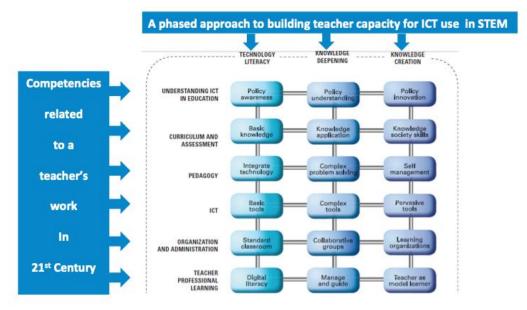
At the core of GESCI's "Digital Secondary Education, 21st century skills and readiness for the world of work" concept/approach are 4 contextualised and integrated frameworks, viz.

1) Digital School of Distinction framework for whole school ICT integration and development;



2) ICT Competency framework for teachers

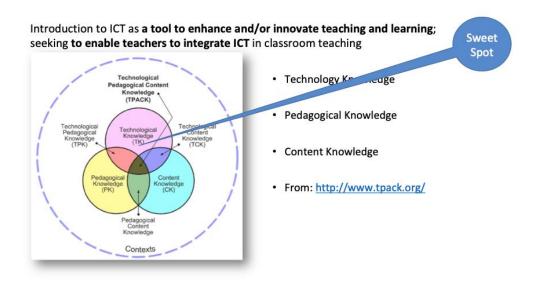
ICT Competency Framework for Teachers (ICT-CFT)



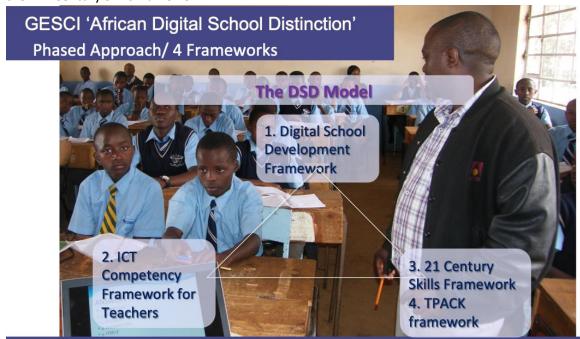
Adapted: UNESCO 2011; Col. 2015

3) The Technological Pedagogical Content Knowledge (TPACK) framework

Teacher Technology Pedagogy and Content Knowledge (TPACK) Framework



4) the 21st Century Skills framework



"Some of these schools have now become popular to both learners and parents due to the changes taking place in these schools. The Principals through the DSD pathway have brought infrastructural development like building of ICT rooms, Wifi, equipping the ICT rooms with computers and policies on ICT integration which the students like. As a result most of the school's enrollment has changed

The GESCI Digital Schools of Distinction framework provides a pathway, guidelines and resources for participating schools to do more with the technology they have. The school leadership and Boards of Management (BOM) received extensive

professional development and the necessary planning and digital tools to make progress from 'e-initial' to e-enabled to 'e-confident' to e-mature' to attain the Digital Schools of Distinction status. In 2018 the selected 140 secondary schools across all 3 countries implemented the GDSD. Schools and their communities were collectively involved in meeting the GDSD requirements for each status award. In Kenya 78 out of 80 (97.5%) schools achieved e-enabled status and are working enthusiastically towards achieving e-confident status in 2019. A very successful Principals' Conference was held which imbued principals and their boards with renewed energy and motivation to lead their schools towards achieving DSD status at the e-maturity level. Hubs of excellence within particular schools and counties in Kenya emerged, demonstrating how the use of technology can enrich and enhance learning, teaching and student achievement.

In Tanzania a DSD workshop was conducted for 120 School Based Coordinators, Heads of School and School Boards where they completed the school self- assessments and commenced the data filling for e-enabled status. The DSD school planning and assessment processes raised accountability of key players in school leadership including heads of schools – something that is imperative for supporting teachers perform project tasks and classroom teaching and learning practice while pursuing training in ADSI. 60 school heads, PTA representatives and SBCs actively participated in the DSD self- assessment workshop for e-enabled status. The DSD e-enabled status award evaluations are still in progress for Tanzania and Côte d'Ivoire.

Thematic Focus Area: Teacher professional development and ICT competencies

Worldwide there is a renewed focus on the need for high quality teaching and learning. More attention is paid to the role of teachers and teaching which are key to improving the quality of

"The power of spicing up learning with technology made my mean score in the 2018 National Examinations to be a B-. Technology does miracles for the weak students. My subject was the best and the most improved in the school in 2018". John Gichuri, Taita Taveta

education. The implementation of the ADSI model encompassing a phased teacher development approach facilitated and supported by blended learning and intensive and on-going school-based support was very successful in 2018. At the end of 2018 the following results were achieved:



Figure 1: Maxwell Kayesi - ICT Teacher of the Year Recognized by ADSI Kenya Project Manager, Esther Mwiyeria

In Kenya, 756 out of 800 (95%) teachers have been certified for Technology Literacy (TL) and 739 teachers out 800 teachers (92%) teachers certified for Knowledge Deepening (KD). The key concepts covered were: problem-based learning, creativity and communication by using concept mapping, digital photo storying and web quests. 557 lessons (71 % STEM and 29% other subjects) were observed, peer reflections conducted and inputs consolidated for internal learning and policy feedback. A total of 131 Technology Literacy (TL) and 191 Knowledge Deepening (KD) exemplary lessons scoring 80% and above were uploaded into the ADSI OER portal, thereby enabling access to a wide range of teachers for peer learning. In Tanzania, 344 out of 397 (87%) teachers have been certified for Technology Literacy (TL). As a result of active engagement of SSTs and SBCs, 649 lessons were

observed, peer reviewed and feedback shared which enabled peer learning amongst participating schools. In Côte d'Ivoire 165 out of 200 (83%) teachers have been certified for Technology Literacy (TL). These very positive results were made possible by the excellent collaboration and support from the county/regional officials, school leaderships and committed GESCI field staff. We gathered evidence and observed that across the 3 countries more teachers use technology when performing their routine classroom activities and that more participate willingly or invite peers to classroom observations especially during the school visits. We also experienced an increasing interest and awareness on the use of technology due to close and regular support from Project Coordinators (PCs), SBCs, School heads and SSTs. As understanding and appreciation of the project benefits grow among stakeholders and beneficiaries, engagement has become stronger and more meaningful. While some project teachers had been transferred and new teachers replaced them, the momentum across countries was maintained because of additional efforts from the field teams. More teachers (other than STEM and project teachers) came on board through mentorship initiatives, especially in Kenya.

In Côte d'Ivoire the deeper engagement from the national Ministry of Education in particular the Director of Cabinet, and the involvement of the General Inspectors of each subject discipline to include ADSI/ENEA in their priority and scheduled visits to schools greatly facilitated project activities and generated a spirit of cooperation among other departments as well. The IT Department provided on-going support for the successful deployment of equipment to schools and to get them user —ready for training sessions. They also provided technical support during training sessions. The GESCI deputy project manager established good working relationships with heads of institutions and agencies and conducted regular meetings to brief the Director of Cabinet. Regular meetings with the project support teams to prepare for school visits, DSD school assessments and the contextualisation of tools and frameworks also took place.

While a significant number of schools across the 3 countries faced internet/connectivity challenges, as the figures show above, teachers still persevered and excelled. These excellent results came about because of the following:

- Commitment of the ADSI field teams (GESCI staff and county/regional officials) who
 remained focused in a very turbulent time (transfers of school heads and ADSI
 teachers to non-ADSI schools, GESCI staff changes)
- Creation and facilitation of peer learning opportunities
- Abstract topics and hard to teach concepts in Problem-based and Project-based learning were demystified through the use of OERs and simulations
- More support from school leaders and an improved positive attitude by the teachers to the use of ICT in their schools
- Improved support with internet by the school administrations in Kenya emanating from the attainment of E-enabled status.

Thematic Focus Area: ICTs for 21st century learning with a focus on STEM subjects

The technology driven 21st century work place is creating rapid shifts in demands for knowledge

and skills. The specific need is for Science, Technology, English and Mathematics (STEM) related skills to meet demands for new emerging knowledge economy sectors related to information technology (cloud computing, advanced software development) and science, engineering and technology



Figure 2: Project Coordinator (Christine Akello, Kiambu) at a Teachers Conference

convergence(nanotechnology, bio-technology and electronics engineering).

In 2018 GESCI's work in this thematic area focused on:

Developing systematic approaches and models towards the integration of 21st
 Century skills in general and in STEM subjects and classroom practices

- Developing ICT in STEM quality exemplary curriculum materials for teachers and students in secondary schools using OERs and local resources and various new education technology tools
- Enhancing the quality of fixed and mobile technology use in classroom practice to support new pedagogy and content in STEM subject teaching and learning;
- Improving learner motivation, engagement, retention and achievement in STEM subjects paying particular attention to gender issues in girl and boy performance
- Developing policy briefs and evidence- based research and evaluation studies to inform scaling up models for ICT use to enhance 21st century learning and STEM skills.

"I am indeed happy to have been part of the ADSI family. I enjoyed every moment in training and implementation. The program has given me an edge in matters digital.

Thanks for your selfless efforts in making us ahead of others. I promise to keep the digital spirit wherever I go". Evan Ogota, Departing Principal, Nyamira County.

As a result of the capacity building and school support, students' active participation in their learning and their motivation and interest in the STEM subjects increased. Students conducted online searches for content to address project-based learning activities, they analyzed data, created presentations and presented in groups which turned out to be fun demonstrating successful acquisition and application of 21st C

skills. In Kenya 84 boys and 74 girls participated in Project Based Learning competitions producing 55 projects across STEM areas. The best projects in each county was recognized.



Students presenting an English Project Literature Set-book. Salvation Army Joytown Secondary Schools



Students from St. Peter's Ndumberi Secondary Schools
Position 3 – Kiambu County Competitions



Students presenting a Project in Chemistry St. Peter's Ndumberi Secondary School



Students from a school in Cote d'Ivoire solves a problem during a lesson.



STEM teachers undergo training in Morogoro, Tanzania.



Students in an ICT integration lesson in Tanzania

Thematic Focus Area: ICT-enabled education for children and youth in crisis environments

Over half of the world's refugees are children under 18 years of age. Access to education for this marginalised group is limited: only 1 in 2 refugee children has access to education; 1 in 4 refugee adolescents has access to secondary education; and 1% of youth has access to higher education.

Even in countries where refugee children have access to national education services, a significant proportion remain out of school, or have low attendance and completion rates. ICT can facilitate the delivery of education in places and in contexts where children and youth are more difficult to reach, and can enhance collaboration and the development of teaching and learning resources among teachers though online platforms.

In 2018 GESCI invested significant time and other resources to explore the learning needs and requirements of displaced children and youth in crisis situations and which types of responses and initiatives seem to produce the best results. We also gathered information about potential partners and focused on building strategic partnerships with organizations providing assistance to refugees/ displaced persons to develop models and resources to address the learning and skills needs of children and youth in crisis environments and help contribute to sustainable recovery and development in crisis regions. Several significant partnerships were developed in this regard, e.g. with AUC, IGAD, UNHCR.

Institutionalisation and sustainability

Strategic engagement and collaboration with policy makers are important in helping the programme gain traction and ownership. Involving officials from teacher employers, SSTs and EWG to join in school visits, trainings and other activities created an appreciation of the ADSI model and this served as an endorsement for the project and validation of the activities, leading to adoption and ownership of processes, tools and new practices. Close collaboration also enabled them to recognize and appreciate that the ADSI project goals and approaches were aligned with national aspirations/policies for teacher capacity building and quality of teaching and student learning in secondary schools. As a result, GESCI became a trusted partner and advisor across the 3 countries on ICT integration issues.

In Kenya, the visits helped the TSC officials to know that ADSI incorporates Technological Pedagogical Content Knowledge (TPACK) components in teacher observation further making them feel we recognize and appreciate their own policies and initiatives. Policy inputs were collected during the teacher workshops and converted into policy briefs which are being used for engagement with policy makers to change practice.

In Tanzania, 2 regional government officials oversaw training in each region on the DSD Roadmap E-Enabled pathway conducted for 39 Heads of Schools, 38 School Board Members and 40 SBCs. The officials received the DSD Roadmap positively and described the DSD handbook as well organized.

In Côte d'Ivoire, ADSI triggered two processes viz. the DTSI department of the Ministry of Education took notice of the online learning resources provided by ADSI and is exploring ways to increase the collection, analysis and choice of relevant digital education contents that could be shared on a Ministry Platform for use by teachers throughout the system. Due to the interest generated by the ADSI model, the Ministry had held its first workshop on the development of a strategic Vision of Innovation in STEM education.

It emerged as a significant lesson in 2018 that it would not be feasible to have a single approach for institutionalisation and sustainability of the ADSI model across the 3 countries because of the differences in the education systems and structures. The lessons from Kenya show that institutionalisation and sustainability should be focused at county level, while in Tanzania greater strategic engagement is needed with the Ministry of Education, Science and Technology (MOEST) and the President's Office for Regional and Local Government (PORALG) at national level simultaneously with engagements with regional level institutions on operational matters. In Côte d'Ivoire it might be better to target the relevant departments at the national level.

Lessons learned from implementation

GESCI places emphasis on monitoring, evaluation, research and learning from implementing its approaches, frameworks, concepts, strategies, processes and activities in order to improve and adjust where necessary in a timely manner. With Kenya pioneering the ADSI frameworks, strategies and processes, we use the learnings to find solutions to challenges in Tanzania and Côte d'Ivoire and to improve on and contextualise training and content to suit their requirements. Some of the key lessons in 2018 include the following:

- In previous projects our experience showed that to make ICT a significant feature of education in schools and to obtain buy-in for full integration, takes quite some time to achieve. However, the GESCI Digital Schools of Distinction (GDSD) whole-school approach involving national, county and school leadership, school community members (BoMs/PTAs), teachers and students supported by School Support Teams and School-Based Coordinators to build capacity and understanding, greatly accelerated and enhanced the use of technology for teaching and learning (both teachers and students)
- Institutionalization of project models, approaches and activities at national Ministry and Headquarters levels is important and necessary. However, for successful project implementation and change in school practice there has to be ownership at the grassroots where the first level of beneficiary stakeholders are working from, e.g. bundles and routers will not be provided by the national Ministry but must be planned and budgeted for at the school level, and school principals and education officers at local level should facilitate this.
- The active involvement and support of school leaders is critical in ensuring progression to achieve full Digital Schools of Distinction status (from e-initial to e-enabled to e-confident to e-mature). The training of school leaders was critical in this regard.
- Being proactive and having open consultations and communication with key stakeholders
 is important in helping project planning and implementation. Across the three countries,
 this approach has helped in aligning activities to the school calendar, carrying out class
 observations and school visits at convenient times for the teachers and schools. This has
 enhanced the acceptability of the project by the teachers as well as ministry officials as

- they no longer see the ADSI activities as intrusive or disruptive of learning and examinations in schools
- For the Expert Working Groups to contribute and participate optimally and productively, agreed and clear terms and conditions for their engagement, deliverables and remittance are required from the outset
- Continued motivation of county/regional officials to remain engaged and actively involved in project activities at schools requires recognition and achievement certification. This together with the empowerment they receive as School Support Team members translates to high levels of commitment at county and regional level
- The positive impact of ADSI in schools in terms of the effective use of ICT has generated interest among other teachers not directly involved in ADSI, many of whom have engaged in peer learning activities (within the school) in aspects such as lesson preparation and delivery spreading the impact beyond the STEM teachers/subjects
- Close collaboration and coordination with the national and decentralised MoE structures are essential for project success
- In addition to raising policy issues the policy forums provided deeper insights to stakeholders on their progress and practice of ICT integration and to map it against the existing policies and to identify gaps. The school leaders and teachers appreciate the fact that their experiences / voices are heard and considered for policy amendment and policy making
- Involving School-Based Coordinators in school visits to neighbouring schools increased peer learning, motivation and networking opportunities among the ADSI schools at county / regional level. High levels of enthusiasm contributed to observation of 1,216 lessons compared to the planned 600 lessons
- The approach of online learning combined with practical activities and ongoing school-based support and reflection on practice provides a viable model for sustainable professional development and impact.

Strategic Partnership Building and Networking for Sustainability and Scale



GESCI CEO Jerome Morrissey with other panelists during a session at the Innovating Education in Africa Expo in Dakar, Senegal.

In 2018 GESCI re-evaluated its strategy on strategic partnership building and networking. It decided to look for opportunities for growth by sharing its best practices in sector wide frameworks to extend its sustainability and scale, by promoting its knowledge learnings to a broader community of implementers as well as accessing new target markets in the areas of refugee education and in and outside of Africa.

Global Engagements



Esther Mwiyeria, GESCI Country Project Manager ADSI ,Kenya makes a presentation at the 11th Policy Dialogue Forum of the International Task Force on Teachers (ITFT) Montego Bay, Jamaica.

GESCI continued to promote its knowledge sharing by playing leadership roles in high-level meetings on ICT integration in education globally. GESCI as the co-chair of the UNESCO International Task Force on Teachers' sub-committee on ICT and Distance Education helped organize one of the four thematic areas of the 11th Policy Dialogue Forum of the Task Force, in Montego Bay, Jamaica, in November 2018. Additionally, GESCI's ADSI Kenya country manager presented a paper in this session on critical issues for ICT integration in the Professional Development of Teachers.

GESCI as a member of the mAlliance Steering Committee, attended both this meeting and the Symposium held in Washington USA, in November 2018. Mobiles for Education Alliance Steering Committee members, including selected Ministry of Education officials and other invited representatives from other organizations investing in global, regional and national technology in education initiatives. The Symposium focused on Using Technology to Scale Support for Teachers and Community Educators in Low-Resource Environments. GESCI moderated a session on Real-Time Classroom and Community Data Collection and Monitoring.

Continental Engagements in Africa



GESCI CEO Jerome Morrissey and HE Professor Sarah Anyang Agbor Commissioner for Human Resources, Science and Technology, AUC after signing an MoU in Addis Ababa, Ethiopia.

2018 saw GESCI raise its profile on the African continent with the deeper engagement with continental bodies in promoting digital technical vocational education, in developing new tools for sector integration of ICTs in education, in promoting post-graduate leadership programmes in ICTs and knowledge society, in new approaches to education management information statistics, with a focus on refugees and engaging in continental private education discourse.

In April, GESCI co-hosted with ADEA the African Ministerial Forum on "Youth skills and enterprise in the digital age" in Tunis, Tunisia. This Forum brought together senior policymakers, government administration senior officials, development partners, private sector, representatives of African youth, young entrepreneurs, civil society and experts to showcase, share and discuss comprehensive and innovative TVSD/TVET models and programmes that aim at developing the leadership and digital skills of the youth. GESCI made a presentation on "Digital Secondary Education, 21st century skills and readiness for the world of work" at the Forum.

In April, UNESCO and the Government of Kenya convened a Pan-African High-level Conference on Education (PACE 2018) in Nairobi in collaboration with the African Union as well as other key partners including GESCI and the SDG4 co-conveners (ILO, UNDP, UNFPA, UNICEF, UNHCR, UN Women and the World Bank). GESCI moderated the panel on "Leveraging 21st century technologies for the advancement of education systems as well as societies and economies in Africa."

In July, the African Union Memorandum of Understanding between GESCI and the AU's Human Resource, Science and Technology Commission was signed which agreed upon working in areas of mutual interest and in particular forward the agenda of the ICT in Education Cluster, of which GESCI is the chair. This led to an agreed work plan on the implementation of GESCI's role as the lead agency for the implementation of the ICT Cluster in promoting the objectives of the Continental Education Strategy for Africa.

Additionally, GESCI developed a Memorandum of Agreement with the Pan African Virtual e-University (PAVEU) to further develop post-graduate virtual diplomas in African Leadership in ICTs and Knowledge Society (successfully run in 16 countries with over 500 graduates up to 2017); in Women Leadership in Science, Technology and Innovation (drafted with FAWE and finalized this year, it will involve all 5 African Pan-African Universities contributing curriculum related to their specialist domains); as well as accrediting the GESCI post-graduate diploma for Teacher Competency in ICTs in Teaching and Learning (developed from the African Digital Schools Initiative experiences). Additionally, a post graduate diploma in Transformative Leadership in Agriculture, Fisheries and Livestock is proposed and will be developed with partners.

GESCI also participated in the inaugural African Union Refugee EMIS meeting, in Kampala, Uganda in September. This brought together a small group of experts, partners, including UNHCR, and member states (Kenya and Uganda) to develop a concept note to expand a strategy of country engagement on this critical theme in preparation for the AU thematic year of the Refugee and Migrants.

GESCI was an integral part of the AU Innovating Education in Africa Expo in October in Dakar, a conference, chaired by Minister of Higher Education and Research, Senegal, which brought together education innovators from all of Africa. GESCI participated on various panels on innovative practices as well as chaired the expert group that selected the final prizewinners. This exposure of GESCI practices brought on enquiries for engagement from the Minister of Education, Botswana; from Deputy Permanent Secretary of Education, Gambia and Special Education Director, Malawi, among others.

GESCI chaired a session of St. Mary's University 16th International Conference on Private Higher Education in Africa in partnership with the African Union Commission, Association of African Universities, IICBA/UNESCO, IGAD, the Ethiopian Federal Ministry of Education, International Network of Higher Education in Africa and the Ethiopian Airlines/Aviation Academy. The Conference created a platform for a wide-range of actors, educators, policy/decision-makers, higher education leaders, and partners engaged in the promotion of higher education to deliberate on issues pertinent to the enhancement of quality education in African institutions of higher learning. The Conference generated policy-relevant recommendations from various scientific research papers under different themes and sub-themes. It provided an opportunity for networking among researchers, educators and leaders in higher education institutions.

Regional Engagements

GESCI has extended its support in both knowledge sharing and human resources in breaking new ground in the area of refugee education and lessons learnt from its grass roots practices. It promoted its lessons in various regional forums and developed a new tool which takes its lessons learnt at school level and creates an assessment framework of norms and standards of ICT integration against which ministries of education can benchmark and plan their ICT strategies.

Throughout 2018, (May, July and December), GESCI was invited to be a part of a ground-breaking initiative involving a group of experts and partners supporting the IGAD Secretariat in various meetings, including the culminating Ministers forum of eight Member States on the Implementation of the Djibouti Declaration of integrating Refugees into Education, all of which took place in Addis Ababa, Ethiopia. GESCI made a presentation at the most recent partners meeting which attracted the attention of Education Cannot Wait, among others.

Organised in June by The Partnership to Strengthen Innovation and Practice in Secondary Education (PSIPSE), GESCI joined around 60 organizations, experts, academics and government officials from Kenya, Uganda, Tanzania and Democratic Republic of Congo working in the areas of education and training at the Regional Education and Learning (RELI) Convening 2018 in Dar es Salaam, Tanzania. . RELI is a joint program of Wellspring and the African Population and Health Research Center (APHRC). RELI network seeks to relate to cross-project learning through the development of thematic principles of good practice, policy influence, better coordination and alignment of participating organizations. RELI's core long-term goal is to empower its members to become effective, influential organizations. GESCI has been selected to work within the

initiative to enhance learning on the thematic areas of Leaner Centered Teaching, ICT Integration in Education and Values and Lifeskills Education. GESCI contributed a significant chapter to the recent PIPSE publication on best practices in secondary education.

As a result of the MOU with the African Union, in August GESCI developed a continental/regional ICT integration in Education Assessment Framework of norms and standards of best practice based on GESCI's African Digital Schools frameworks. The intention in 2019 is to engage the Regional Economic Communities (RECs) to roll-out customization of the framework, assessment and peer reviews with their member state ministries of education. This will allow a benchmarking against best practices and a road-map on ICT integration in education for individual countries. This scaling up of ICT integration norms and standards in education across regions will be sustained by RECs facilitating member states to review their state of ICT development in education with the assistance of their neighbouring states. In 2019, the first engagement will be with East African Member States followed by IGAD and SADC.

National Engagements

GESCI's primary engagements in recent years have focused on the implementation of the African Digital Schools Initiative (ADSI), delivered in secondary schools in Kenya, Côte d'Ivoire and Tanzania, a programme that has been designated as an exemplary and flagship programme of the African Union Commission. This initiative moved into deeper engagements in all three countries. Additionally, GESCI is seeking to expand into new target markets in fragile states with a focus on supporting refugee education in Kakuma Settlement, Kenya, at school and non -formal levels and in Lebanon with 2nd shift schooling of Syrian refugees. GESCI also extended its technical support to Sierra Leone in promoting sector-wide ICT integration of its education administrative information systems.

In Tanzania, providing technical support to the finalization of the government's GPE fund proposal in November, GESCI was requested by DIFD to provide a report on the implementation of GESCI in Tanzania in order to secure its place in a newly established Committee on ICT in Education. The GESCI Tanzania country manager is to make a presentation on GESCI to senior management in Dodoma.

In Kenya, GESCI met with the Directorate of Policy and Planning, Ministry of Education and UNHCR in October to discuss proposed support in Kakuma Refugee Settlements. This was followed up by a mission to the settlement where GESCI met with government and partners to negotiate partnerships in this regard. Further engagement with UNHCR is proposed on a youth programme. GESCI also submitted a proposal on developing young women migrants in visual media training in Nairobi, which is yet to be realised.

In Sierra Leone, GESCI has been contracted to provide technical support under the EU's 11th Education Development Fund to the government, in providing expertise for the design of systems and development of capacity in establishing sector-wide ICT-enabled planning and monitoring

for Ministry of Basic and Secondary Education as well as Ministry of Technical and Higher Education. This will be ongoing into 2019.

As part of its previous involvement in UNESCO-China Funds-in-Trust Project on "Enhancing Teacher Education for Bridging the Education Quality Gap in Africa" in Uganda in 2017, GESCI was commissioned by UNESCO to write a technical proposal on Establishing Public Private Partnership and Networking Guidelines for Uganda's Ministry of Education and Sports to attract private sector for the implementation on ICTs in Education for Teacher Training in Primary education, General Secondary and TVET.

GESCI developed a number of funding proposals related to the promotion of digital skills in various countries, including Ghana, Zimbabwe and explored one in South Africa with partners, among others which were unfortunately unsuccessful.

Advocacy and Communication

- The ADSI model is informing practice within government: In Côte d'Ivoire, ADSI has triggered two processes: the ICT department of the Ministry of Education has taken notice of the online learning resources provided by ADSI and is exploring ways to increase the collection, analysis and choice of relevant digital education contents that could be shared on a Ministry Platform for use by teachers throughout the secondary education system. Due to the interest generated by the ADSI model, the Ministry has held its first workshop on the development of a strategic Vision of Innovation in STEM education.
- Growing external interest in the ADSI model: There is a growing mutual interest and learning between ADSI and Dignitas Kenya. Dignitas Kenya is implementing a project that has similarities with ADSI but through different approaches and at different depths of implementation. They are working with teachers and school leaders in informal education settings. They facilitated a session during the ADSI Training of Trainers on strategies for sharing policies that are developed during the project period with stakeholders and beneficiaries. They also worked with the ADSI team on the issue of storytelling as a way of gathering information on the level of impact of the project. Reciprocally, we visited them and shared our experiences in the use of online platforms to reach a larger number of teachers and how to continuously monitor project progress in real time using a variety of tools. We also regularly share experiences from the field.
- As a key action under the AU's Continental Education Strategy for Africa (CESA) GESCI is currently developing a regional strategy to present ADSI to the ministries of education at regional level throughout Africa. The draft strategy will be forwarded next week to the Human Resource, Science and Technology Commissioner for approval and support.
- The African Leadership for ICT and Knowledge Society Development (ALICT) programme concluded at the end of 2017. The course modules were revised and updated and two additional modules were added. Updated country studies on the state of Knowledge Society

development were published for sixteen African countries. GESCI has agreed that the programme will be offered by the University of Mauritius (UOM) and St. Mary's University, Ethiopia at post-graduate diploma level. UOM is also offering a short top —up course to take it to a Masters qualification.

- A new Pan-African Virtual University has been established. GESCI is currently in discussion
 with the Virtual University in relation to offering ALICT/LaTIC as one of their first programme
 offerings as well the option of offering a new Postgraduate Diploma in Teaching and Learning.
- The African Knowledge Exchange for Creative Digital Media Skills programmes (AKE) concluded in the 2nd half of 2017 and the programme has been updated and made ready for possible take up by countries. Full updates on activities relating to these programmes were provide at the February 22nd February meeting of the Board of Directors.
- GESCI continues to respond to calls for proposals from possible donors and to propose
 programmes and projects for funding. While almost all major international country donors
 and foundations have singled put education and skills as extremely important areas to fund
 in Africa, very few initiatives have received funding so far. Education and training initiatives
 for refugees and displaced children are also priority areas for donors. GESCI is working with
 IGAD on this issue.

Associated activities included:

- Participation in the Regional Education Learning Initiative (RELI) arranged by the Partnership for Strengthening Innovation Practice in Secondary Education (PSIPSE) convening in June 2018 in Dar-es-Salaam,
- Proposal development for additional support to ADSI schools in Kenya and for responding to a call for bids for country-wide teacher professional development by the Kenya Teaching Service Commission (TSC) and meetings and participating in joint training sessions with Dignitas Kenya.
- Participation at the International Task Force on Teachers for Education (ITFTE) 2030
 Annual Meeting and 11th Policy Dialogue Forum held in Montego Bay, Jamaica in November 2018. GESCI, as co-chair of the sub-committee on "Teacher education: Digital learning and continuing professional development" helped organize the sub-theme of the Policy dialogue Forum.
- Attending the M-Education Alliance Symposium on "Using Technology to Scale Support for Teachers and Community Educators in Low-Resource Environments." The symposium took place in Washington, USA in November 2018.GESCI shared learnings from Digital Schools of Distinction Programme. GESCI is a member of the mEducation Alliance Steering Committee.
- Carrying out an exploratory mission to the Kakuma Refugee Camp and Kalobeyei Settlement Scheme in Turkana, Kenya. GESCI was invited by Ministry of Education

- through its participation in the IGAD Technical Working Group to working Kakuma and Kalobeyei refugee schools given its expertise and resources in teacher development and whole school ICT integration.
- GESCI participated on various panels on innovative practices as well as chaired the expert group that selected the final prizewinners at the Innovating Education in Africa Expo held in Dakar, Senegal. This exposure of GESCI practices brought on enquiries for engagement from the Minister of Education, Botswana; from Deputy PS of Education, Gambia and Special Education Director, Malawi, among others.
- GESCI trained teacher participated in the National Teacher and was awarded the ICT Teacher of the Year. Mr. Maxwell Kayesi from Karuri Secondary School in Kiambu County, Kenya linked his win to knowledge gained from the African Digital Schools Initiative trainings offered by GESCI.Mr. Kayesi also received a Presidential Award for exemplary work done in the education sector.

Organisational Development

Staffing

The new staff members are:

- *Deputy Country Project Manager for Côte d'Ivoire*, Ms Sylvie Tanflotien. She is very experienced accomplished in ICT integration in teaching and learning and in teacher training. She holds a Master of Education from the Graduate School of Education, Science Education, Rutgers University, New Brunswick, New Jersey, USA, in addition to other qualifications. She worked at Rowan College at Burlington County, Mt. Laurel, New Jersey, USA as STEM adjunct before joining GESCI.
- *Education Specialist*, Ms Elizabeth Mbasu, who is a very seasoned and experienced Education Specialist having worked inter alia for AVU as Educational Technology and Learning Resources Manager and Instructional Designer; Aga Khan University as Instructional Designer; Africa Institute for Mathematical Sciences Next Einstein Initiative as Instructional Designer and USAID FHI360 as Education Specialist. She is a blended learning, OER, content development, curriculum development and online learning expert having worked in these areas across 21 African countries
- *MERL Specialist*, Mr. Samuel Otieno. He has substantive experience in the INGO sector having implemented several donor- funded projects across the East & Horn of Africa Region, working in multi-cultural contexts and hostile environments and with rural communities. He has played leading roles in multi-country projects steering Monitoring, Evaluation, Research and Learning (MERL) functions. He has worked across projects funded by among others; DFID, EC/EU, UNDP, UNICEF, JICA, IDRC, HEWLET.

Manager Programme Design and Resourcing, Ms. Angela Arnott has wide experience as a team leader for project/program design and development, management and evaluation for international development agencies. She is an education policy analyst and has completed evaluations and institutional, management analysis and sector assessments of education ministries. Significant consultancies in past two years include:

Development of GPE Application for Tanzania Mainland (Current). Developing GPE funding application for Government of Tanzania, team leader for External Assessment of Results in Education for All Children; Teacher and Learner Attendance Mobile Application *development;* NIGERIA EMIS Assessment; Tanzania's Big Results Now in Education Payment for Results; IT-enabled M&E systems for Education for Ministry of Finance, Zambia; Assessment of TVET capacity at school and post-secondary levels. Indonesia Ministry of Education, Indonesia. (OECD) in 2015; Author of chapters on TVET and Education Finance for Sector Assessment on Schooling in Indonesia and GPE Assessment, Ministry of Education, Zimbabwe (Results for Development).

Partner Spotlight



GESCI Staff with official from JP-IK during handover of laptops to school heads in Abidjan, Cote d'Ivoire.

The Mastercard Foundation supports GESCI's 5 –year African Digital Schools Initiative (ADSI) in Kenya, Tanzania, and Côte d'Ivoire as part of the Foundation's Innovations in Secondary

Education to test innovative approaches to making improvements to secondary education the ultimate goal of influencing education practices and system reform. JPIK, Portugal donated to GESCI's Ecole Numérique d'Excellence Africaine (ENEA) initiative in Côte d'Ivoire, 60 laptops and 40 projectors to 20 project ENEA schools covering Abidjan and Yamoussoukro regions. This allowed schools to commence the online tutoring of the ENEA programme.

Forum for African Women Educationalists (FAWE) is a key partner of GESCI in promoting girls and women's education. FAWE collaborated with GESCI in developing the concept note and proposal for a post-graduate diploma in African Women Leadership in Science, Technology and Innovation which will involve GESCI developing the curriculum online with the participation of the Pan-African Universities in space science, health, water, energy and sciences.

The Association for the Development of Education in Africa (ADEA) is partnering with GESCI in promoting the ICT integration in education administrative systems under this AU Cluster as well as co-hosting the digital skills conference on youth in Tunisia.

Financial Overview

As a non-profit organization, GESCI manages its expenditure prudently within its available resources. We are proud of our financial efficiency and accountability as we work to maximize the value of every dollar we receive. And even now we are committed to remaining efficient, accountable stewards of resources you and others so generously entrust to us. In GESCI we ensure effective financial control and transparency of the financial data of our projects and reaping the trust and confidence from all those whom we work with.

Financial results for the year

Income for the 12 months to December 31st 2018 was US\$2,601,722. Expenditure for the same period was US\$ 2,493,407 while closing funds as at 31st December 2018 (Cash at Bank) was US\$ 1,529,789.

Annexes:

GESCI organogram

