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Welcome to the SPIDER Annual Report 2017, Digitalising International Development. We want to start by thanking all our partners and collaborators for a busy and exciting year. Many of us met during our Network event in Abuja in October and we are proud of the spirit of collaboration among the SPIDER partners.

During this year SPIDER has continued to support many existing partnerships, but we have also found new partners and started working in additional countries, such as Myanmar and Bangladesh. SPIDER has also seized opportunities to connect partners from different areas and institutions with each other.

SPIDER is unique in the way that we integrate research, in that we both gain from and apply additional knowledge to each project, resulting in more detailed and verified outcome reporting. Today we have local researchers tied to our projects all over the world and you can follow some of their work in the SPIDER Research Bulletin.

In 2017 SPIDER announced several open calls for projects and the interest for these have exceeded all expectations. We can see that the desire to use digital technologies/ICT (Information and Communication Technologies) to the benefit of humanity has grown markedly, as many organisations have approached us to learn how their results could be improved with the use of ICT.

The digitalisation of results reporting at all levels of project/programme management has been another focus area and we are hard at work making use of ICT to capture outcomes in our own results chain. SPIDER is helping to push the digitalisation of international development in many different ways, and we are all excited about the results in this report as well as the work that lays ahead.

Please enjoy reading and learning more about what SPIDER is all about. You can also follow us and our projects on www.spidercenter.org get involved through social media.
MEET THE TEAM

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SPIDER PARTNERSHIPS

- **132 Partners**
- **28 M SEK Investigated in Digitalising Development**
- **54 Partners**

*The partnerships refer to SPIDER supported projects, network members and MoU partners in Africa, Asia and Latin America. If you would like to learn about our global partnerships, contact us.*

### 2017 Budget

- **Projects**: 64%
- **SU core**: 16%
- **Sida core**: 17%
- **Other**: 3%
- **Assignments**: 0%

### Co-Funding

- **T&A SPIDER**: 30%
- **T&A co-funding**: 20%
- **Edu SPIDER**: 10%
- **Edu co-funding**: 20%
- **H&W SPIDER**: 30%
- **H&W co-funding**: 0%
SPIDER is a strategic programme focusing on how ICT (Information & Communication Technologies) can be used in international and national development efforts to decrease inequalities. Our focus is making the digitalisation of international development an opportunity for countries and regions to fully make use of the digital revolution and to close gaps where it had been previously impossible, for the benefit of the whole society.

SPIDER was one of the very first organisations to solely focus on digital technologies as a tool for International Development. Since the year 2004, we have aggregated evidence, contributed to research, built expertise and collaborated with partners in all spheres of the international arena. In 2017 we mobilised and supported our networks in an unprecedented way, to reach further.

We accelerate the achievement of Sustainable Development Goals by making key connections among our networks, highlighting Digital Principles for Development, sharing our expertise and facilitating cross-pollination of ideas, systems and data.

SPIDER takes a clear stand for digital development to be considered a Human Right and continues to strive towards the universal goal to “LEAVE NO ONE BEHIND”. We foster local partnerships that transcend all levels of society and include the academic, public, private, and non governmental sectors in all our efforts.

SPIDER is an organisation that has built a web of global partners and collaborators, making sure that if we ourselves lack the expertise within an area of Digital Development, we are able to source the right organisation to address the existing need.

In this publication we offer you a glimpse of the achievements of our partnerships in 2017, and why you should partner with us.
In 2017 SPIDER continued to engage communities around the need for human-centered digital development. Digital International Development must be guided by a Human Rights approach to protect and enable economic and social progress.

Our research programme is designed to garner evidence of need within communities and to record the impact of ICT.

SPIDER developed partnerships within our five key stakeholder sectors. Uniting the public, private and civil society sectors with academia and with experts in digital technologies enabled us to explore more efficient and effective investment in digital systems.

Our two major events boasted a multidisciplinary approach to problem solving where we trained partners to focus on results through a Result Based Management lens.

SPIDER highlighted the Principles for Digital Development at the first ever Lusaka Internet Forum, organised by the Embassy of Sweden in Zambia. SPIDER endorses the principles in both theory and practice by always informing, analysing and promoting the 9 principles. www.digitalprinciples.org

The Agenda 2030 / Sustainable Development Goals guides SPIDER’s investments, partnerships and results framework. In 2017 the focus was on SDG17 where we see ourselves as enablers of sustainable partnerships.
SPIDER supports the efforts of local organisations to systematically collect, aggregate and share data and information, to build capacity of users and to support actors in evidence-based decision-making and advocacy.

The core of SPIDER’s Transparency and Accountability Program is sharing open, objective and verified information about ecological, infrastructural and social issues as well as commitments, regulations and laws. Various actors are trained to use data to make informed decisions and take action based on concrete evidence.

New partners have joined the programme and there is a need to build technical capacity and to find the appropriate approach in each country setting, especially considering political challenges. It is worth noting that the lead data editors and coders among the Open Data family are women, giving us excellent opportunities to develop this further, making advances on gender equality within the field of ICT.

RESULTS

In 2017 the SPIDER Transparency and Accountability Program has grown from 8 to 17 partners, fully populating the entire SPIDER T&A result chain from data providers, aggregators and sharers, to data users and decision-makers.

The Open Development Mekong platform, the five country platforms, and extended partners have shared a total of
- 28920 datasets;
- 1222 news, publications and overviews;
- 29 laws; and
- 20 radio shows.

The total of 919 711 page views and 22 981 downloaded datasets, documents, maps clearly underscore the demand for verified and reliable information about all spheres of social and economic development.
SPIDER’S APPROACH TO TRANSPARENCY AND ACCOUNTABILITY

INFORMATION
Support collection and sharing of information about the state of the natural environment, laws, regulations and procedures and the commitments and performance of various actors.

FEEDBACK
Use evidence-based advocacy and data to engage with duty bearers (government, private sector or other actors) on a particular issue to affect a change.

ACCESS
Support actors in making data or information accessible to other relevant actors and broader public.

ACTION
Support various actors in using data in their work to inform priorities, planning and awareness raising, or change campaigns.

T&A PROGRAMME FOCUS 2017

- Ensuring coverage of the entire T&A chain from data contribution, refinement, sharing and use of data
- Facilitating collaboration between organisations that work with adjoining steps in the SPIDER result chain
- Engaging with government at various levels to promote the usefulness of objective and accurate information

PHANDEEYAR
“OPEN DEVELOPMENT PLATFORM FOR MYANMAR.”

Phandeeyar maintains the Open Development platform for Myanmar. During 2017 the project has shared 822 datasets (datasets, laws, reports, case studies, map layers etc).

They have trained various organisations to use data and provided long-term coaching and support to three journalists from two newsrooms in data journalism, resulting in the publication of a host of articles that provide accessible overviews of complex topics in the country.
COLLABORATION ON INTERNATIONAL ICT POLICY IN EAST AND SOUTHERN AFRICA (CIPESA)
“MEDIA FOR TRANSPARENCY AND ACCOUNTABILITY UGANDA”

The project focuses on building collaboration between 14 CSOs and 11 media houses to ensure better reporting on Transparency and Accountability. The aim is to ensure that journalists become more familiar with the deeper mechanics of transparency and accountability and that CSOs are better equipped to inform the press. The project has held workshops round tables and established collaboration between newsrooms and CSOs.

TORO DEVELOPMENT NETWORK
“ICT4PUBLIC ACCOUNTABILITY & DEMOCRATIC ENGAGEMENT”

The eParticipation system aimed to engage decision makers, duty bearers, citizens and civil society organisations to establish channels of communication to address key public concerns in communities in Uganda and central Kenya. Despite delays due to political climate, the system geared towards information, discussion and decision-making was able to result in action taken particularly to address absenteeism among health workers, educators and other service providers. The great effort to illustrate the benefits of the systems resulted buy-in from local leaders, and enthusiasm is particularly high in Kenya where ICT is widely used.

OPEN DEVELOPMENT CAMBODIA, STAR KAMPUCHEA AND CAMBODIAN CENTRE FOR INDEPENDENT MEDIA
“IMPROVING THE DELIVERY OF PUBLIC SERVICES THROUGH ICT”

The providers of public services in target communes have become more approachable and comfortable with the community and take action to meet. Health centers work longer hours to meet demand, teachers are more responsive in taking care of their students and 40-50% of the issues raised through the project have been put into the Community Investment Plan. The health centre now has sitting rooms for women who have given birth and there is an ambulance to respond to emergencies.

OPEN DEVELOPMENT CAMBODIA (ODC)
“MAPPING OF PUBLIC SERVICES”

ODC has mapped public services in Cambodia, providing clear information about various documents, basic services such as electricity, and bus routes in Phnom Penh. The project has generated a lot of interest from civil society and the Ministry of Education requested that ODC map all schools in Cambodia in relation to the census data. ODC has become a trusted source of information both inside and outside the country and the Forest Coverage page launched in 2016 was referenced by NASA.
WOMEN OF UGANDA NETWORK (WOUGNET)
"ICTS AND WOMEN’S SOCIO-ECONOMIC EMPOWERMENT FOR IMPROVED SERVICE DELIVERY"

Results and research in 2017 show that ICTs amplify voices of ordinary citizens and increase awareness and participation of both men and women in leadership and other public affairs. This occurs as a result of increased access to information on human rights, citizenry duties, the law and public service delivery as well as citizen’s ICT-supported engagements in democratic activities.

However, the gender order in the private sphere still favours men, who control finances and the distribution of resources. Even though women are gaining inroads in public political participation, there is a cultural resilience of patriarchy in the home.

INSTEDD IBABS SOUTH EAST ASIA
"ICT4D SOLUTION INCUBATOR CAMBODIA"

The project allows Cambodia NGOs and CSOs to explore how technology can support their work. Based on the needs and ideas of CSOs, InSTEDD prototypes, incubates and pilots solutions. In 2017 three solutions made it through to the incubation stage and two of these were piloted: the Khmer Writing App, and the GoGreenApp to keep Phnom Penh clean.

OPEN INSTITUTE
"INDEXING KHMER DOCUMENTS THROUGH OCR"

Optical Character Recognition software plays an important role in the digitalisation of information which plays a key role in availability and spread of information. Open Institute initiated the research on how to improve the accuracy of the existing Tesseract for Khmer. When Google released a new version of the software, Open Institute arranged a symposium to provide an overview of the current state of the field in Cambodia. The conference on OCR and NLP for ASEAN Language was held in December 2017 and gathered 17 presenting researchers from the region of Europe and included 4 keynotes, presentation and a total of 9 research papers.

EAST WEST MANAGEMENT INSTITUTE (EWMI)
"OPEN DATA TO MONITOR THE SDGS IN THE LOWER MEKONG REGION"

EWMI curates the regional Open Development platform for the Lower Mekong Region. The project has focused on gathering information on 5 SDGs related to the ecology of water and land. EWMI has established partnership with 6 partner organisations in Laos, Thailand and Vietnam. Between June 1, 2017 and Jan 30, 2018, the number of unique visitors to the 6 OD platforms was 355,146 and the total number of page views was 1,052,488.
SPIDER's Digital Health Programme takes a holistic approach to digitalisation of health systems and Global Public Health. Our main focus is the strengthening of care-chains, institutions, and systems so that health workers from the community level all the way up to national institutions have the right resources and access to expertise. This all-encompassing digitalisation enables health professionals to do what they do best, more efficiently and effectively. In 2017 SPIDER initiated our own Health Network to accelerate the sharing of skills and expertise in digital health. We also intensified our international collaboration to foster coordinated and well informed interlinkages and alignment to national health efforts and international investment. SPIDER promotes interoperability of solutions to connect systems that allow health professionals to collaborate and add to vital health data. We believe this adds to decision support, professional development and confident leadership by key groups.

SPIDER'S HEALTH & WELLBEING PROGRAMME
TAILORING TECHNOLOGY FOR BETTER HEALTH

DIGITALISING HEALTH SYSTEMS IS NOT ABOUT GADGETS AND APPLICATIONS. IT IS ABOUT HUMAN-CENTERED TECHNOLOGY BEING AT THE HANDS OF THOSE WHO ARE HEALTH EXPERTS, ALLOWING THEM THE OPPORTUNITY TO GIVE THE BEST POSSIBLE HEALTH SERVICES TO THOSE WHO NEED IT MOST.
H&W PROGRAMME FOCUS 2017

- New partnerships & networks to meet the Sustainable Development Goals
- A systems approach to build capacity and link different types of health professionals
- Supporting scalable and interoperable solutions that can be localised

MPower Social Enterprises
"mCare"

Data informing the baseline is from 509 lactating women registered with the Family Welfare Assistants (FWAs), and from this registry, 312 lactating women were sampled. Data shows that the FWAs' record keeping benefits from the digital Open Sample Registration Platform (OpenSRP), to avoid errors in antenatal and postnatal date records. Wrong dates have a serious impact on postnatal survival, immunisations and delivery of crucial follow-up care for mother and child. The Open SRP limits duplication of information and incomplete data entry as it is fully interoperable with other national health architecture, and is supported by WHO.

RESULTS

- SPIDER engaged with the global donor community and African Ministries of Health to stimulate a systems approach, create better awareness of interoperability, and strengthen local health institutions.
- We connected our partners to new partnerships and opportunities, leading to direct unanticipated outputs for our new ICT 4 Health & Well-being Network members.
- Three research publications on Telehealth for cervical cancer screening and care, leading to implementation projects.

Infa-Med
"Digital African Health Library (DAHL)"

This project was implemented as a private-public partnership, with SPIDER matching the investment of private sector funding. The Digital African Health Library is a resource for doctors and health professionals for continued professional development and access to latest research, national testing guidelines and diagnostic assistance. Summary of 2017 solution development, advancements and available resources:

- Kenya basic paediatric protocols
- 5 Oxford Handbooks, DynaMed, CALS, BND, RHealth Advisor, 2 Kenya MoH guidelines
- iOS (Apple) platform made available
- Institutional option available

Amref Health Ethiopia
"Mobile Health for Improved Maternal and Child Health Services Utilisation"

Amref Ethiopia found in 2017 that the level of mobile ownership among health workers was higher than anticipated and has carried out necessary ICT upgrades where needed at the participating clinics, including linking them to internet access. Training for Health Extension Workers has taken place to prepare for application use and understanding of the referral system so that expectant mothers can utilise the full services available to them. Guidelines to support health clinics have been distributed. District level management will follow up on progress.
The scope of the E&L programme is broad, and we work in formal settings (primary, secondary and tertiary level) and non-formal education (vocational skills). The programme is responsive to the needs of partner countries with strong emphasis on inclusion of marginalised groups.

Over the past two decades, tremendous achievements have been made in literacy and enrolment rates. However, wide literacy and numeracy gaps still persist. The programme therefore aims to reduce these gaps by building on what works, to provide access to ICT-based open learning and to contribute to capacity building of teachers. This enables them to incorporate ICTs in their teaching to enhance learning outcomes among the students.

SPIDER will continue to pollinate solutions that have been adapted to contextual needs in order to scale these to new countries where SPIDER is yet to build partnerships, effectively closing the education gap through digitalisation.

In 2017, 4 new agreements were signed with new partners selected from the open call held in 2016. The total of 6 projects are aligned to the result chain, and met the target for the medium term outcome of making 6 initiatives effective. The program is embedded in the Sustainable Development Goals #1, 2, 4, 5, 8, 10, and 15.

About 746 teachers underwent training, directly benefiting 16,204 students. 61 institutions of learning offered access to ICT-based education.
**E&L PROGRAMME FOCUS 2017**

- Focus on access to education and learning for marginalised populations, including people living with disabilities
- Transparent and inclusive open calls to attract new partners

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**FUNDACION LA PAZ**

**“LET US LEARN TO TEACH USING ICTS”**

In 2017 Fundacion La Paz trained 620 teachers (258 women and 362 men) from 33 secondary schools in La Paz and El Alto, surpassing the target with 53 more teachers in the use of ICT for education.

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**UNIVERSITY OF DODOMA, UDOM**

**“ENHANCING EARLy GRAde LITERACy AND NUMERACY USING DIGITAL CONTENT AMONG PRIMARY SCHOOLS IN REFUGEE VILLAGES IN NYARUGUSU CAMP, KIGOMA, TANZANIA”**

Three desktop computers, 120 tablets and 3 routers were installed after the classrooms were renovated. The renovation took longer than expected but nonetheless, 12 teachers from the 3 schools together with education inspectors have been trained, exceeding the target by 5. Teachers have created digital content resulting in 3 digital books, 3 educational modules, 14 animated stories and 6 games.

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**EFL**

**“OPEN ACCESS POLICY DEVELOPMENT IN KENYA, TANZANIA AND UGANDA TO MAKE MORE DIGITAL CONTENT AVAILABLE”**

The project advocates for the adoption of Open Access policies at 16 universities. The project has one objective, which is to provide researchers and students with ICT-based access to research material. The target was set to 50%, and now there is over 200% more digital content available.

Twelve new institutions have joined and in 2017, 25 policies have been discussed and 10 adopted and implemented. Sixteen repositories have been improved, 11 in Kenya and 5 in Tanzania and now they operate under the best practices. An unexpected outcome is that University of Nairobi Digital Repository ranks #4 in the Ranking Web of Repositories in Africa.

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**UGANDA NATIONAL ASSOCIATION OF THE DEAF (UNAD)**

**“ICT4PUBLIC ACCOUNTABILITY & DEMOCRATIC ENGAGEMENT”**

UNAD has though their work taken key steps towards standardising the Ugandan sign language. The organisation has set up a digital library and authored a strategy to inform the design and development of Ugandan Sign Language (USL)

UNAD exceeded the target of meeting with 100 stakeholders by 96%. In terms of capacity building, UNAD has trained 19 out of 20 sign language teachers (50% women), and tutorial videos for YouTube have been produced, containing 1 sign per video. 600 videos have been created and the target is set for 2500 by 2019.
WORLD VISION BOLIVIA

“MATHMATICS AND LANGUAGE THROUGH THE USE OF ICT4D IN THE MUNICIPALITY OF UNCIA”

A number of workshops have been held, training 72 teachers on how to use computers and the selected platforms. The classrooms in the three primary schools have been refurbished and the equipment has been installed.

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY

“E-LEARNING AND MULTIMEDIA TECHNOLOGY FOR MATHEMATICS AND BASIC HEALTH EDUCATION IN NAKIVALE REFUGEE CAMP”

The partners started implementing the project in the month of December, by meeting with the head teachers to discuss the project and obtain input to customize the existing platform to accommodate the needs of students and teachers.

SOUTH-TO-SOUTH COLLABORATION

SPIDER effectively mobilises partners from different regions and with different expertise in order to efficiently utilise investment and build on south-to-south collaboration.

We do this through our networks as well as through initiating direct collaboration between organisations and projects.

Through the bilateral collaboration with Sida, and with coordination by SPIDER, Universidad Mayor de San Andres (UMSA) in La Paz, Bolivia developed a Research Information Management System, (RIMS) – built on open source – that enables management of research in a systematic way, tracking the progress of academic work and courses and management of the research funding and grants. University of Dar es Salaam (UDSM) from Tanzania needed to develop a similar system, and since the tool had already been developed in Bolivia, SPIDER coordinated the South-South exchange of knowledge and technology, where educators from UMSA spent a week at UDSM in March 2017, sharing the source codes and knowledge about the system. Additional features built by the universities will be shared between the two under an agreed MoU. In October 2017, educators at UDSM had the opportunity to travel to UMSA, this time to share their performance appraisal system, a system that UMSA needs.
At SPIDER we emphasise the importance of research in the work we do. We insist on localised research and take pride in our programme of carrying out applied research. By applied research we mean the use of context-specific information, gathered from local stakeholders to solve real social problems. Our Research Programme is integrated in everything we do. Connected to each SPIDER project is an independent researcher who performs a needs assessment, and provides useful information to shape the project in the best possible way, in order to produce knowledge on digital international development and improve the outcome of each implementation initiative. The researchers will especially see how the project addresses SPIDER’s crosscutting issues: Gender, Social Realities, Human Rights, Environment, Disabilities and Increased Access to Digital Technologies (security and integrity).

This multi-country needs assessment took place in Kenya, Rwanda and Zambia in 2016, with reports published in March (Zambia), June (Rwanda) and December (Kenya) of 2017. The project is an excellent example of how research forms the spine of an implementation initiative. The findings of the report have informed a framework for implementation, having mapped stakeholders and identified potential collaborators in each country. The implementation phase is expected to start in 2018, with the addition of Uganda, a country identified in the region as having the expertise to diagnose and treat cervical cancer. The reports can be downloaded from our website, www.spidercenter.org.
The ICT Regulation – Policy & Practice programme supports strategically important changes in the participating regulatory authorities and empowers the regional regulatory organisations to harmonise successful initiatives.

The programme supports strategic regulatory development in targeted countries in Sub-Saharan Africa. The cornerstones are the change initiatives that each participant implements while receiving training and coaching in the programme. Each change initiative is selected by the senior management of the regulatory authority.

In 2017 we identified the need for a development of the programme to also cater to new regulatory authorities, or independent authorities in the making, where the focus is on building an independent institution. With partners, SPIDER can strengthen collaboration between the various regions, leading towards the achievement of SDG #17.

The ICT Regulation ITP Programme is a partnership with SPIDER, Sida and PTS (Swedish Post and Telecom Authority).

### 2017 Programme Phases

**ROUND 2017A**
- Countries: Kenya, Rwanda, Uganda
- Coaching: East African Communications Organisation (EACO)
- Preparatory phase - in partner countries: March-April
- Sweden phase: 3-16 May
- Initiating change initiatives: May-August
- Regional phase: 4-6 September in Arusha, Tanzania
- Implementing change initiatives: Sept - Feb 2018

**ROUND 2017B**
- Countries: Botswana, Namibia, Mozambique, South Africa, Swaziland, Tanzania, Zambia
- Coaching: Communications Regulators’ Association of Southern Africa (CRASA)
- Preparatory phase in partner countries: July-October
- Sweden phase: 20 Nov - 1 Dec
- Initiating change initiatives: December
CAPTIONS FROM 2017

Group 2017A in Tanzania - Regional Change Initiative phase

Group 2017B in Stockholm - Sweden phase

RESULTS FROM THE ICT REGULATION PROGRAMME IN 2017

- 12 change initiatives were started by the first round of the programme (Round 2017A), by 18 participants from 3 countries
- 24 change initiatives were started by the second round of the programme (Round 2017B), by 27 participants
- 3 coaches were trained during Round 2017A
- 2 coaches were trained during Round 2017B
- In 2017A, 7 out of 18 participants were women.
- In 2017B, 13 out of 27 participants were women. Gender-balanced groups have been encouraged in the selection processes.

PROGRAMME PARTNERSHIPS

The programme is co-hosted by SPIDER and the Swedish Post and Telecom Authority (PTS). Sida is funding the programme with approximately SEK 5.5 M per round.

The following three regional regulatory organisations are key partners in the programme as coaches to the participants:

"The relationship established and the information received from the Swedish Regulator PTS has been very relevant and beneficial"

MS. SUSAN NAKANWAGI
MANAGER - TELECOM LICENSING,
UGANDA COMMUNICATIONS COMMISSION
**BILATERAL PROGRAMMES**

SPIDER creates partnerships of added value by bringing together its extensive network of global experts, partners and knowledge in user-centered design, implementation and evaluation of ICT enabled development.

During 2017 SPIDER has coordinated five bilateral research programmes in the area of ICT and research management at public institutions in Tanzania and Bolivia. The programmes are sub-programmes of large research support programmes between Sida and the respective institutions.

SPIDER continues to harness the knowledge we have acquired in the management of bilateral programme management to map new opportunities by finding synergies between the bilateral programmes. With in-house research capacity as well as a highly skilled staff team with varied experience from a range of capacity building programmes, SPIDER has and will continue to support the enhancement of infrastructure, skills, exchange of expertise and the use of open source software to strengthen research institutions in our partner countries.

**RESULTS FROM OUR BILATERAL PROGRAMMES IN 2017**

- Better capacity in use and organisation of research management systems.
- Improved capacity in project management and setting indicators in research projects.
- MoU between University de San andres Andres and University of Dar es Salaam.
- Better cooperation between UMSA, UMSS and UDSM in implementing ICT functions.
- Supported new scientific research communication network between public universities in Bolivia.
- Leverage on South-South collaboration between university partners that Sida has supported with IT knowledge and solutions.
In 2017, SPIDER assisted in implementing a part of UMSA’s ICT-master plan. We coordinated training and the transfer of a system developed in University of Dar es Salaam’s system to UMSA by UDMS staff.

We also provided experts for training in (1) ICT-supported research management, (2) project management with indicators, and (3) scientific communication.

**Universidad Mayor de San Andrés (UMSA)**

“Capacity Development of Management of Research, Postgraduate Studies and Social Interaction”

In 2017, SPIDER had an advisory role in the implementation of the ICT Master Plan and coordinated for UMSS to participate in UMSA’s trainings.

**Universidad Mayor de San Simón (UMSS)**

“Support to Scientific and Technological Activities”

**Tanzania Commission for Science and Technology (COSTECH)**

“A) Research Communication” B) “Research Management”

Research communication sub-programme: Developed the information architecture that is being used to develop the new website; Samples of the new website developed; Information needs assessments gathered from key stakeholders.

SPIDER contributed to the development of the research portal under the Research Management sub-programme.

**Muhimbili University of Health and Allied Sciences (MUHAS)**

“Building a Stronger MUHAS in Supporting Research and Innovation”

A curriculum was delivered for postgraduate students on evidence-based practices in medicine that has passed accreditation; A technical audit report was created with an inventory was done of all the IT services that the University is providing; and an action plan was developed for integrating MUHAS information systems.

**University of Dar es Salaam (UDSM)**

“Strengthening Research Management at UDSM”

The collaboration with UDSM offers a perfect example of a south-south knowledge exchange initiative. SPIDER realised that UMSA, who had developed a research Information management system (RiMS) using open source, could share the source codes of the RiMS with UDSM. Both partners welcomed the initiative and a one-week training was facilitated on site in Tanzania, assisting UDSM to fulfill the activity of developing a digital platform to manage and organise research at the University.

In October 2017, UDSM educators had the opportunity to travel to UMSA, this time to share their performance appraisal system, a system that UMSA needs.
Evidence of need, data for action and strengthening of local research institutions is at the core of SPIDER’s work. Integrating research with project implementation contributes toward more sustainable and locally owned solutions.

SPIDER integrates applied research within each of our programme areas: before / during / and after each project has ended. This provides evidence of need, real-time evaluation to improve project execution and allows feedback between researchers and development practitioners. Our programme strengthens local research organisations by harnessing contextual knowledge and end user engagement.

SPIDER strongly believes that investment into employing local researchers has the potential to contribute towards Sustainable Development Goals. The expertise we have within SPIDER is also a valuable asset to in-country research. We see greater investment as a step toward making applied research of high quality inform international development efforts.
# SPIDER RESEARCH PARTNERS 2017

## LATIN AMERICA
- **Gabriela Fabre Moraes** - Fundacion La Paz
- **Ninoska Enríquez Quintanilla** - Universidad Católica Bolivian San Pablo

## ASIA
- **Soprach Tong** - Monitoring and Evaluation Association, Cambodia
- **Kuon Chantha** - Real-time Data Solutions, Cambodia
- **Malabika Sarker** - JP Grant School of Public Health, BRAC University
- **Yan Naung Oak** - Phandeeyar Foundation

## AFRICA
- **Drake Mirembe** - Uganda Technology and Management University
- **Stephen Mugabe** - Afritech Limited, Uganda
- **Paul Kimumwe** - CIPESA
- **Betty Najjemba** - Uganda National Association for the Deaf
- **Anne Salim** - Intelipro, Kenya
- **Andrew Binde** - University of Dodoma
- **Ayele Belachew** - AMREF Health Ethiopia
- **Geoffrey Wechuli** - Institute of Family Medicine of Kenya
- **John Owuor & Johnblack K. Kabukye** - DSV/Stockholm University
- **Rulisa Stephen & Joseph Ngenzi Lune** - University of Rwanda
- **Charles Chengo** - Zambia Health Informatics Association
- **Sharon Kapambwe** - Ministry of Health, Zambia
Findings from the research undertaken for each project have been incorporated into all results reporting in this publication. A few examples of the importance of research results reporting are listed below.

**OPEN DEVELOPMENT MYANMAR "MAPPING OF PUBLIC SERVICES"**

The research mapped Myanmar’s open data ecosystem. The Map explorer is one of the most attractive features because it allows users to upload their own geodata files onto the open data website.

**CIPESA "MEDIA FOR TRANSPARENCY AND ACCOUNTABILITY UGANDA"**

Media reports play a pivotal role in promoting transparency and accountability through informing citizens. The baseline report shows that Uganda’s media houses provide a considerable amount of space and time to cover issues pertaining to law and order, justice, health and well-being, land reforms and concessions, and delivery of local government services. Capacity building is needed for members of civil society organisations to gain skills and knowledge needed to engage with the media. Likewise journalists should build knowledge and skills needed to engage in investigative and interpretive reporting. The mutual understanding between these actors is crucial.

**UDOM "ENHANCING EARLY GRADE LITERACY AND NUMERACY USING DIGITAL CONTENT AMONG PRIMARY SCHOOLS IN REFUGEE VILLAGES IN NYARUGUSU CAMO, KIGOMA, TANZANIA"**

Schools in the Nyarugusu refugee camp, in Dodoma, Tanzania, face complex challenges. The baseline surveys carried out at three schools--Safari, Maendelo, and Nuru--found that other than lacking permanent classroom structures, 1252 grade one and grade two pupils and 27 teachers who are refugees from Burundi exhibited very limited literacy and numeracy skills. None of the surveyed teachers had ever used ICTs to teach literacy and numeracy. This presents a great opportunity to support the development of pedagogy skills through ICT among the 27 teachers. Having digital backups of teaching and learning materials is considered an advantage given the fact that learners in refugee camps are sometimes or always on the move.
**AMREF “MOBILE HEALTH FOR IMPROVED MATERNAL AND CHILD HEALTH SERVICES UTILISATION”**

The research has been used as a feedback instrument in the process of improving maternal and child health services using ICT. A baseline study was carried out on the project in the North Shoa Zones of Ethiopia’s Amhara region, where the project is piloted. It shows that in Ethiopia, direct obstetric complications account for 85 percent of maternal deaths. These complications include abortion (32%), obstructed labour (22%), sepsis (12%), haemorrhage (10%) and hypertension (9%). The use of ICTs, particularly mobile phones, has shown positive results in health service utilisation.

**4 universities**
**5206 OA Publications**

**EFL “OPEN ACCESS POLICY DEVELOPMENT IN KENYA, TANZANIA AND UGANDA TO MAKE MORE DIGITAL CONTENT AVAILABLE”**

The EIFL project has promoted partnerships among a consortia of libraries in East Africa: The Kenya Libraries & Information Libraries (CUUL) and the Consortium of Tanzania Universities and Research Libraries (COTUL). These consortia have advocated for increased access to free digital scholarly electronic content and narrowed the problem of this lack in Kenya, Tanzania and Uganda. The research suggested that overcoming this problem could boost development as well as improve teaching and learning. Representing the growth of Open Access content so visually has galvanised other universities to catch up with the open access movement, in the spirit of sharing knowledge.

**14 universities**
**106 613 OA Publications**

**MPower Social Enterprises “mCare”**

While mPower has been developing the solution further, sensitised key groups delivered training and recorded health service providers’ experience of the system. The research partner at BRAC was able to complement this by uncovering alarming data to illustrate the direct impact digital health solutions are aiming to address. This partnership has the potential to paint the reality of health workers and the effect of human error and push for national adoption of the OpenSRP system in Bangladesh. The project is also a great example of how social enterprises can team up with independent research institutions to verify need and demand.

**11 universities**
**14 115 OA Publications**

SPIDER TOOK PART IN EVEN MORE EVENTS IN 2017, LAUNCHED A NEW WEBSITE AND WAS MORE ACTIVE ON SOCIAL MEDIA. WE CONTINUE TO SHARE WHAT WE DO, HOW WE DO IT AND WHERE WE DO IT. SPIDER BELIEVES THAT THE DIGITALISATION OF INTERNATIONAL DEVELOPMENT ALLOWS US TO DO DEVELOPMENT DIFFERENTLY.
Networking is a cornerstone of SPIDER. We successfully establish, lead and support networks to fully benefit from their design, setup, and membership. Through networks we add value to digital development, benefiting not only our own programme results but also organisations and institutions who are members of these networks.

Since SPIDER truly knows networks, we decided to share the recipe for successful network leadership with the digital international development community by inviting our various network leaders and interested partners to a tailored training, called PENTHIO, in Abuja, Nigeria. Just as with our networks, the training was designed to engage and evoke genuine participation during the two-day workshop. The feedback was so positive that we immediately saw results as network leaders started challenging their own methods of keeping networks relevant to their membership. A few participants identified parts of the training as being urgently needed in their work not only in their respective networks, but in their overall organisation. In particular, those at high levels of decision-making identified a need for SPIDER’s training which focuses on digital national and international development, based on results of the work they do.

PENTHIO is a cross-sectoral workshop for those leading or coordinating international networks, whether in the government, business, academic or civil society sector. It is relevant for any organisation working with digitalising international development, irrespective of programming skills or professional title.

SPIDER collaborates with a wide range of networks. This cooperation is both with our own networks, but importantly also external networks, where we are recognised as an independent and experienced organisation that connects different thematic spheres and levels of expertise for digital development that can scale for greater impact.

Our focus remains on local capacity, local presence, local needs and representation. In 2017, we saw unprecedented requests for SPIDER to be part of global networks as well as present at events highlighting digital international development. We understand that great ideas come from everywhere. In sharing lessons learned and the know-how of our partners there is an opportunity to avoid past mistakes and focus on common learning and complimentary efforts.
INTERNATIONAL POSTGRADUATE NETWORK FOR STUDENTS IN ICT4D (IPID)

Globally, there is a disconnection between new researchers (students) and senior (existing) researchers in the field of ICT for Development (ICT4D). The International Network for Postgraduate Students in the Area of ICT4D (IPID) was established in 2006 with the ambition to become a social and academic platform for mending this disconnection. The network has 945 registered members, representing different universities and research organisations around the globe, and has become the largest network of postgraduate students within the research domain of ICT4D. Since it was founded, IPID has organised over 30 events including symposiums, workshops and seminars in collaboration with different academic institutions. A minimum of 3 events are organised every year. The purpose of these events is to promote young researchers, and their research, and to connect them to senior researchers and practitioners. In doing so, more synergies are created to increase research innovations.

SPIDER has been funding all of IPID's annual activities. The funding includes travel grants to international conferences, seminars and workshops for students and senior researchers.

ICT4D CAMBODIA NETWORK

A lot of organisations within the democracy network are implementing projects in various thematic areas. Some are using digital tools, and others would like to do so. The network brings together CSOs, NGOs and other actors for meetings between organisations working within the same area, such as health, education or social advocacy. During 2017 the network hosted six meetings for various sectors and two meetings focused on technology. There were two awards for Best ICT solution, given to BarCamp Phnom Penh and Siem Reap.

NETWORK 4 ICT IN EDUCATION

Two network members (out of six) participated in two international conferences to share experiences and lessons learned and to network with other actors and donors. This led to discussions with other donors about possible project ideas.

ICT REGULATOR NETWORK

SPIDER is in dialogue with three regional regulatory organisations--EACO in East Africa, CRASA in Southern Africa, and WATRA in Western Africa--on how the participants in the programme can become part of an already existing cross-region network together with the African Union (AU).
SPIDER’S ICT 4 HEALTH & WELLBEING NETWORK

The Health & Wellbeing Network was established in 2017, with a first meeting held in Lusaka, Zambia 19-20 April. Together with the Head of Digital Health and the Head of the Research Programme, 13 members attended. The organisations included Zambian Health Informatics Association (ZHIA), AMREF Health Ethiopia, mPower Social Enterprises, INFA-MED, Urunana Development Communication, University of Rwanda, and DSV/SU.

The focus of the meeting was to set up Network Goals and a strategy for sharing of resources, contacts and skills. Sustainable Development Goal #3 was set as the collective goal for all the Network’s activities. The importance of interoperability and local ownership is key.

SPIDER recorded the different expertise that exists among the members, who are all SPIDER partners, to identify which gaps exist which could hinder the Digital Health Programme in fully realizing its outcomes. An inventory of funding partners provides the membership with a good overview to extend collaboration and to keep abreast of vital development in the Global Digital Health arena. SPIDER also identified opportunities where we can elevate partner results and highlight their success.

At the end of the second day, the Network invited individuals and organisations that had an interest in learning more about the Network, Digital Health and SPIDER. As a result, several crucial connections were made with organisations and institutions who were interested in some of the solutions our programme supports.

ICT 4 SOCIAL INNOVATION NETWORK

- Selected two sub-forum leads to run network activities in Eastern and Western Africa.
- The network and sub-forum leads together with SPIDER held online and physical membership drives to re-engage network members and establish their capacity building needs as well as discuss ways the network could support the members.
- Network members have started working on network Terms of Reference (TOR) documents to get members to buy in and drive the network towards common goals in digital development.
- The network has increased members from 30 in 2015 to over 70 in 2017.
- Communication and engagement of members is through the social media pages on FaceBook and Twitter, and the ict4si.org website.
- Since 2016 we have released a number of videos promoting members’ views of the network.
- The ICT4SI network signed a working MOU with Afrilabs to increase network engagements.
- The 2017 ICT 4 Social Innovation Conference was held in Nigeria. The Nigerian Government was represented by various departments and ministries. The African Alliance of Digital Health Networks presented their initiative and the very active Western Africa Forum highlighted plans for future network events.
Penthio is SPIDER’s tailored training for network leaders. Penthio provides a holistic approach to leading successful networks for international development. Penthio equips network leaders with the confidence, tools and methods to coordinate and lead multi-country and diverse networks around specific needs-based development outcomes. Being a SPIDER workshop, we have invested a lot of effort into meeting the needs of our partners and their specific network setup, as well as making sure that the digitalisation of international development is

- **Agile Leadership**
- **Creative Collaboration**
- **Measurable Impact Based on Need**
- **Digital Tools for Collaboration**

In October 2017 the SPIDER team delivered a two day PENTHIO workshop in Abuja, Nigeria, to develop skills and equip our Network Leaders with methods to manage networks with confidence and success.

The nearly 50 participating network leads came from Bangladesh, Pakistan, Cambodia, Kenya, Rwanda, Tanzania, Uganda, Bolivia, Nigeria, and Sweden.

As a result of the PENTHIO workshop in 2017, participants have reported a better understanding of Results-Based Management (RBM), identifying opportunities for improvements, methods for leading people in different countries and strategic planning based on needs.

Since the workshop in October, SPIDER has been approached by government units as well as organisations and companies wishing to take part in PENTHIO training/workshop(s).
H.E. Inger Ulvtedt addressed the importance of digitalising development for trade, innovation and advancements in all areas of international development.

The PENTHIO workshop was a great opportunity for many of our partners to also learn about initiatives outside their own thematic areas. Projects in health could inspire education projects and vice versa. Network leads from Asia could get tips from their counterparts in Africa and Latin America.

SPIDER intends to follow up with participants in 2018 to find out how they have utilised the new knowledge, and whether specific connections were made that will have an impact on the digitalisation of international development as a result.

**SPIDER OFFERS DIGITAL DEVELOPMENT ACTORS RESULTS-BASED MANAGEMENT SKILLS DEVELOPMENT AND IMPLEMENTATION**

SPIDER has in recent years fully adopted Results-Based Management (RBM) as a method to measure and manage results. Our long experience in the sphere of Digital International Development also means that we can offer organisations, companies and institutions working in digital development a thorough understanding of the field, and give practical examples of projects and outcomes which they can relate to, in order to focus their project management methods towards results instead of activities.

SPIDER’s RBM training was delivered at the PENTHIO event in October 2017 and we received several requests for SPIDER to deliver the training to a range of organisations. A government unit at Nigerian government has requested a joint initiative to make sure that the whole department can work with RBM as a basis for following up the impact of their work.

Inspired by the enthusiasm for RBM, SPIDER hopes to attract investment for strengthening institutions in need of our expertise in following up on results for impact mapping, monitoring results, and managing risks throughout a project cycle. Our unique knowledge is specifically tied to the understanding that digital tools and systems serve as a way to increase the speed at which poverty is eradicated, to achieve transparency, to improve public health and to provide access to education by all genders, age groups, and people with varied abilities.

**DIGITALISING RESULTS REPORTING**

In 2017, SPIDER teamed up with Akvo Foundation to explore and test how reporting projects results could be digitalised to free up valuable project time. SPIDER projects are all uploaded with respective result frameworks and indicators to enable a better overview of results. RSR (Really Simple Reporting) will allow real-time reporting to reach all stakeholders, as well as the aggregation of data for results. SPIDER used our experience to encourage transparent and periodic reporting for development organisations, making them more effective and efficient. SPIDER will streamline our digital results reporting in 2018/9.
SPIDER - EXPERTISE, PARTNERSHIPS AND CAPACITY BUILDING

SPIDER was one of the very first organisations to solely focus on digital technologies as a tool for International Development. Since the year 2004, we have aggregated evidence, contributed to research, built expertise and collaborated with partners in all spheres of the international arena. We accelerate the achievement of Sustainable Development Goals by making key connections among our networks; highlighting Digital Principles for Development; sharing our expertise; and facilitating cross-pollination of ideas, systems and data.

Apart from our own networks and events, SPIDER also enjoys membership in external networks and takes part in, or sponsors partners to take part in, special events and conferences on the digitalisation of development. Our core staff give lectures highlighting gender and technology and why digitalisation matters for sustainable development, and they also moderate crucial debate on key issues which affect us all. SPIDER works hard to promote partnerships among and between different sectors, such as private and public, but also to make sure that our events have an intersectional participant list that encourages greater representation of interests and concerns.

SPIDER PARTICIPATION AT DIGITAL DEVELOPMENT CONFERENCES AND EVENTS IN 2017

Future Friday KTH
ICT4D Örebro
Myndighetsforum/sida
Kaunas Hackathon
Digitalising Development - Estonian Roundtable for Development Cooperation

Wilton Park: Digital Health in Africa
GIZ Lab of Tomorrow
Internet Governance Forum (IGF)
The International Conference on Information & Communication Technology and Development (ICTD’17)

mEducation Alliance Symposium
ICT 4 SI Conference
IST africa
The International Federation for Information Processing (IFIP 9.4)

Open Access Publishing workshop
CUUL - SPIDER Open Access Symposium
Social Accountability Symposium
Lusaka Internet Forum (LIF)
eLearning Africa
HOW SPIDER ADDS VALUE TO OTHER NETWORKS

M-EDUCATION ALLIANCE

SPIDER is part of the steering committee of the mEducation Alliance. The committee works toward improving learning outcomes in formal and non-formal education in low resource settings by reducing barriers in accessing quality education and by scaling low-cost technologies. During 2017, SPIDER identified important areas within education and how to future-proof solutions. Partners from UNAD and UDOM presented SPIDER-supported projects at the Alliance’s symposium in October.

DIGITAL HEALTH & INTEROPERABILITY GROUP, AND PEER REVIEW COMMITTEE

SPIDER is part of the Health Data Collaborative and Digital Square’s health initiative. We also form part of the Peer Review Committee, giving our perspective on Global Digital Health. Our perspective is heavily influenced by our guiding principles of inclusive systems for health with local ownership of solutions and interoperable digital tools, both of which benefit health professionals from the community level all the way up to policy level.

WILTON PARK - DIGITAL HEALTH IN AFRICA: LEADERSHIP AND COORDINATION

Wilton Park is an agency of the Foreign and Commonwealth Office in the UK, and an international forum for strategic discussions that encourage innovation in global thinking. SPIDER took part in a special Wilton Park event on “Digital Health in Africa: Leadership and Coordination”, leading to discussions on donor alignment for improved digital development in global health. This led to a donor convention in Santa Cruz, California, U.S., in the beginning of 2018, starting a global conversation on investments in digital health.

SPIDER SIF CHILL

SPIDER organised a special event in conjunction with the Stockholm Internet Forum (SIF) in May 2017. We invited SPIDER partners and special guests to the “SPIDER SIF Chill” to enjoy an evening with hot Senegalese food and music from all corners of the world. This event quickly became a favourite, as our partners could discuss digital development in a relaxed atmosphere and get to know sector colleagues ahead of the main SIF event.

LUSAKA INTERNET FORUM

The Swedish Embassy in Zambia invited SPIDER to be part of the first ever Lusaka Internet Forum in May 2017. We presented on the importance of the Digital Principles for Digital Development, and moderated sessions on Gender and Online Freedoms.

PRE-SIF

SPIDER moderated a Discussion Panel “From Divides to Dividends: Digital Dividends Partnership (DDP) and SDG17” (Panelists were from GSMA, Ericsson, World Bank, Sida, Mozambique Government and LINEAsia)

ELEARNING AFRICA

SPIDER sponsored a Knowledge Session on Disabilities in Mauritius, September 27-29, 2017. Partners from UNAD presented the “Digitalising Ugandan Sign Language” project.

LECTURES

Gender lectures were delivered within the ICT Regulation Programme. Three training sessions on Gender & Intellectual Property Rights in Least Developed Countries (LDCs) were delivered for PRV. One lecture was delivered at SLU on Agriculture & Information. An ICT4D public lecture was presented at the Kampala International University in Uganda.
### BUDGET 2017

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### CROSS CUTTING

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### DSV CO-FUNDING

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<td><strong>TOTAL SUM</strong></td>
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#### Expenses as a Percentage

- **T&A**: 34%
- **E&L**: 21%
- **H&W**: 17%
- **Cross-cutting**: 22%
- **DSV/SU contr.**: 5%