#### Cynthia A. Antwi

#### (PMP, PgD MedSci (Medical Informatics), BCom)

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# PERSONAL PROFILE

An international technology for development professional with 10 years' experience in designing and delivering programs, in low resource multicultural and multi-sectorial settings. Possessing talent for analyzing problems, developing and simplifying procedures, and finding innovative solutions. Excellent skills systems development expertise with proven ability to deliver health technology solutions from conception, development, pilot and scale. Proven ability to develop and manage partnerships and advocacy. Keen interest in working in transformational spaces where technology is used improve lives and outcomes.

#### PROFESSIONAL EXPERIENCE

### Long Term Assignments

# ICT Development Manager, Displacement Unit, MSF Spain, Nairobi Unit Aug 2015-

The Displacement Unit within the EAU is a newly established innovation unit with an aim to respond the growing needs of MSF field operation teams. https://displacementunit.msf.es/projects

#### • Technology & Thought Leadership

- Co-designing and implementing solutions with field teams. Current projects include:
  - EHealth passport: technology to support displaced persons on the move.
  - Social Media applications to provide psychosocial support of migrants in Mexico and refugees in Jordan.
  - Patient empowerment mobile application supporting refugee patients suffering from Non Communicable Disease conditions in Jordan/Syria context.
  - Implementation of Early Warning Alert and Response System (EWARS) for Ethiopia.
- o In collaboration with stakeholders and identified consultants, defined the digital health scope and eHealth strategy as applicable to displacement settings.
- o Conducted "Co Creation" design workshops and convening's focusing on creating awareness of our work, developing various products, defining strategy and process redesign.
- Developed supporting plans, budgets and narratives, working with country missions validate proposed costs.
- O Developed end to end technical system documentation including, business case, system requirements specifications, testing, deployment and training.

#### Partnership management and engagement

o Identifying and fostering relationships focused on vendors, partner organisations to bring in lessons learnt or developing new solutions that were applicable to displacement settings.

# Technical Program Manager, African Health Markets for Equity (AHME), Grameen Foundation Kenya, November 2013 – May 2015

As Technical Program Manager, I was responsible for implementation and oversight of Grameen Foundation's role in the AHME initiative. The AHME initiative was a five-year, multi-country program (Kenya, Ghana and Nigeria) co-funded by the Bill & Melinda Gates Foundation and DFID.

#### • Technology & Thought Leadership

- O Successfully enabled 71000 individuals to access health insurance in Ghana integrating poverty targeting and registration applications on 220 mobile devices.
- o Enabled Marie Stopes International capture and operate their quality assurance activities in real time across their operations in Ghana, Kenya, and Nigeria.
- O Conducted evaluation and gap analysis of the Ghana National Health Insurance registration platforms to determine feasibility for integration with poverty targeting platform.
- O Developed end to end technical system documentation including, business case, system requirements specifications, testing, deployment and training.
- Developed and managed a program budget, work plans, supporting narratives and reports

#### • Partnership Engagement and management

 Partnership engagement and transversal collaboration with solution vendors, consultants and internal teams within Grameen to deliver solutions across the program. This included managing a procurement volume of 850 000.00 USD

# Health Informatics and Telemedicine Program Manager – Botswana UPenn Partnership (BUP) Oct 2011- Oct 2013

Responsible for the expansion of the Health Informatics program. Provided technical and programmatic support to the Ministry of Health University of Botswana School of Medicine and Institutes of Health Sciences. The program was funded by PEPFAR and NIH, USA.

#### • Technology and Thought Leadership:

- Led Ministry of Health to scale up and implement mobile telemedicine platform covering cervical cancer, radiology, oral and dermatology across 25 primary and tertiary hospitals with a total of 80 mobile devices.
- o Provided thought leadership to Ministry of Health technical working group on M&E on issues of data capture and management using mobile technologies.
- University of Botswana and UPenn to scale up mLearning platform and deployment of 320 mobile devices to support the School of Medicine student rotations in rural low resourced health facilities.

#### • Partnership Engagement and Management:

- PPP between Orange Botswana and MoH and University of Botswana to provide phones and data at a reduced rate for 3 years;
- o UNICEF, Ministries of Communications Science and Technology and Youth Sport and Culture, to support annual youth innovation competition.
- Chaired 2 Health Informatics Conferences with participants from CDC, UNICEF, South African Health Informatics Association, MEDITECH, Ministry of Health, Ministry of Communications Science and Technology, Universities of Botswana and Kwazulu Natal.

#### • Capacity Building:

- o 3 credit semester course on Health Informatics for the Faculty of Health Science, University of Botswana and Institutes of Health Sciences.
- o Conducted and facilitated workshops on informatics and technology to 87 health workers covering doctors, nursing, laboratory science and mental health cadres.

### Project & Business Development Manager - Marulaweb Consulting November 2008 - September 2011

- Managed the ICT consulting division and expansion of its service offerings
- Developed end to end technical system documentation including, business case, system requirements specifications, testing, deployment and training.

#### Successfully Completed Projects Include:

- o Implementation of Flight Information Display System for the Francistown International Airports
- o Department of Roads: Expansion of the CODIWE Weigh in Motion weigh bridges project to Tlokweng, Ramokgwebana, Pioneer, Kazungula border posts
- Development of Website & Intranet and SMS Query system for the Botswana Examination Council
- Revamp and Maintenance of the following Botswana Government websites:
  - 1. Ministry of Infrastructure Science & Technology
  - 2. Attorney Generals Chambers
  - 3. Central Statistics Office
  - 4. Ministry of Finance & Development Planning
  - 5. Ministry of Health
  - 6. Government Daily News
  - 7. Ministry of Transport and Communications

#### Senior Business Analyst & Pre Sales Manager - Corporate Business Solutions (Pty) Ltd Jan- September 2008

- Project Lead
- Developed end to end technical system documentation including, business case, system requirements specifications, testing, deployment and training.

#### Successfully Completed Projects Include:

- 1. Botswana Unified Revenue Services web and intranet
- 2. Ministry of Lands and housing
- 3. Ministry of Trade and Industry

#### Systems Analyst - Marulaweb (Pty) Ltd July 2005 -December 2007

• Managed the Multimedia division

- Developed and implemented proposals to the value of 175 000 USD
- Developed systems requirements specifications, testing and training materials

# **Short Term Assignments:**

ICT Lead Consultant, Kenya Forestry Services: Implementation of an Environment Management Systems for Mt. Elgon and Cherengani Project: April 2017-November 2017

- Conducted a system analysis and gap assessment of the current status of the EMS in place; Suggested recommendations for remedial steps where weaknesses exist in the current system, including the underlying business processes and business requirements.
- Proposed different technology solutions that could be adopted to improve the current operations
- Developed a 2 year operational strategy to guide KFS and its partners to scale up and operationalize system across its partner organizations.

# Domain Expert: RealFin Botswana: Development of a Statement of User Requirements for a Quality Information System for the Ministry of Health Botswana. April-August 2015

To lead and facilitate the collection and documentation of user requirements for the development of System Requirements Specification document for the Ministry of Health;

- Conducted a system analysis and gap assessment of the systems in place; Suggested recommendations for remedial steps where weaknesses exist in the current system, including the underlying business processes and business requirements.
  - o Deliverables from this exercise:
    - Gap Analysis Documentation
    - Statement of User Requirements
    - Business Case documentation
    - Solution Evaluation Document
- Developed a 2 year operational strategy to guide the Ministry of Health and its partners to scale up and operationalize system across its partner organizations.

# Lead Consultant, PharmAccess Foundation, Assessment of Ogun State community health insurance Nigeria, June 2015 – August 2015

- Conducted a system analysis and gap assessment of the current status of Araya CBHI Management Information System implementation.
- Suggested recommendations for remedial steps where weaknesses exist in the current system, including the underlying business processes and business requirements.
- Conducted business process re-engineering exercise with Araya teams to develop new business processes and forms.
- Proposed different technology solutions that could be adopted to improve the current operations

#### Senior Systems Analyst: Botswana Stock Exchange September 2013-November 2013

- Process Engineering and Documentation of Botswana Stock Exchange Business Processes and Standard Operating Procedures
- Preparation of deliverable documents.

#### PROFESSIONAL TRAINING

- Project Management Professional No. 1406950
- Association of Information and Image Management (AIIM) Business Process Management Specialist
- AMIA 10x10 Certificate in Biomedical Informatics
- Certificate in Mobile Phones for Public Health
- Computer Skills:
  - o MS Office, Project, Visio, Smartsheets, Salesforce, Trello, Realtime Board
  - DHIS2, mWater, KoboToolbox, ODK, ComCare, OpenMRS, Bahmni, Soltice, EWARS,
  - o RedCap, STATA, EpiInfo,
  - o Java, Delphi, PHP, Python, MySQL
- Language Skills:
  - o English (Native), Setswana (Native), Akan (Fluent), French (Basic)

### PROFESSIONAL BODY MEMBERSHIP

- The 254Network, Women in Leadership, Kenya
- Kenya Health Informatics Association

#### INDEPENDENT STUDY

Mostly through online platforms such as Edx, Coursera, Acumen;

- Design in Healthcare: Using Patient Journey Mapping; TUDelft Online
- Improving Global Health: Focusing on Quality and Safety; HarvadX Online
- Humanitarian Response to Conflict & Disaster; HarvadX Online

#### **EDUCATION BACKGROUND**

- Msc Global eHealth, University of Edinburgh
  - Expected Graduation Dec 2019
- PgD MedSci Medical Informatics, University of Kwazulu Natal (2013-2014)
- BCom Business Informatics, University of South Africa (2005-2009)

#### **PUBLICATIONS**

- Co-author: Implementation of a Tablet Project at an African Medical School: Process and Critical Success Factors. IST Africa 2016 Conference Proceedings.
- Co-author: Implementation of m-health applications in Botswana: telemedicine and education on mobile devices in a low resource setting. Published Journal of Telemedicine and Telecare, 2013 vol. 19 no. 2 120-125
- Co- author: **A Mobile Health Approach to Tuberculosis Contact Tracing in Resource-Limited Settings.** Published in IOS Press Ebooks Vol. 192 MEDINFO 2013.
- Co- author: Evaluating the impact of a mobile oral telemedicine system on medical management and clinical
  outcomes of patients with complicated oral lesions in Botswana. Published in Studies in health technology and
  informatics.

#### **CONFERENCE's and FORUMS**

- Course lead: Introduction to mental health informatics, depart of social welfare, University of Botswana 2013
- **Presenter and Panelist:** Unbundling the ITU National eStrategy Tookilt, Ministry of Health Botswana (June 2013)
- Presenter and Panelist: 16th Annual E-Gov Africa Forum 2012 Commonwealth Telecommunications
  Organisation; "mHealth: Utilizing mobile technology to expand government health and education services
  beyond urban areas"
- **Presenter and Panelist**, Mobile Money Connected Africa Forum 2012: 'mHealth in Botswana Case Study: Developing mobile telemedicine and mobile learning to provide patient access to specialized care'. **Workshop Chair**, Mobile Money Connected Africa Forum 2012: 'Building PPP's in mHealth'
- **Presenter**: 24<sup>th</sup> Pharmacy Association of Botswana AGM 2012: 'mHealth in Botswana: Mobile technology for health care delivery and education-the promise for pharmaceuticals'
- Workshop facilitator (2012): Developing a health informatics curricula for Institutes of Health Sciences, Ministry of Health Botswana.