ARTIFICIAL INTELLIGENCE FOR DEVELOPMENT AFRICA

HASH NEWSLETTER

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HUB FOR AI IN MATERNAL SEXUAL AND REPRODUCTIVE HEALTH (HASH)

Welcome to this issue of the HASH Newsletter. As we begin the new year 2023, we embark on a new chapter with Subgrantees onboard! From a highly competitive process involving 80 applications from 10 countries, we are pleased to announce the Subgrantees that emerged the top applicants. Look out for their project profiles in our forthcoming newsletters.

We also have an introductory word about harnessing Artificial Intelligence (AI) for Maternal, Sexual Reproductive Health (MSRH). Finally, we would like to introduce the HASH Network as a vital next step and a way to get the wider population involved. We hope that you will share in our excitement about this new year and all that it has in store. Congratulations to our sub grantees.

Dr. Ernest Mwebaze
Co-PI HASH; ED, SunbirdAI

Artificial Intelligence (AI) is about making things smart or intelligent. More loosely you can say AI is about empowering technology to make smart decisions for humans. We already use Artificial Intelligence in many facets of our lives.

Everything from our Google searches to what we watch on YouTube would not be as comfortable and enjoyable without AI.

Good health is one of the greatest assets a human being can have. In the HASH network, we want to use AI to improve healthcare in Africa by building algorithms that process health data and are able to provide actionable information that doctors and patients or the general population can consume.

While the potential of AI in health care is envisaged to be great, past AI developments have shown us that we need to be responsible and ethical about the way we develop new AI. In the HASH network we are intentional about developing technology for the greater good, however, we are also very intentional about not building technology that leads to undesirable outcomes or propagates harmful biases.

The HASH network and its subgrantees have committed to implementing responsible AI in their projects. Through adopting responsible AI principles at every stage of development, while also learning from their peers in the network, the HASH members will attempt to maximize benefit and minimize risk in their projects.

AI is the future and I implore all readers, particularly those who are not directly involved in innovation, to take keen interest and learn more. The field is still developing so it is not too late. The utility of AI is growing and in order to make it inclusive and responsible we need the voices of all stakeholders, leaving no one behind.

Prof Bellington Vwalika
Professor of Obstetrics and Gynaecology, University of Zambia

Maternal, Sexual and Reproductive Health (MSRH) is a key indicator of the success of our health systems. This is because besides being a basic human right, MSRH influences and is influenced by multiple related health outcomes. It is also a part of the Goal 3 of the Sustainable Development Goals and is a priority area for the World Health Organization.

Challenges in MSRH are seen globally. Despite the status of MSRH improving greatly worldwide, the greatest need remains in Sub-Saharan Africa. The causes of poor maternal and newborn outcomes in this region have been known for years and remain the same. New local solutions are needed.

Africa is the most populous continent in the world and majority of these are young people who are entering adolescence and adulthood. There is an increasing need to cater to their upstream MSRH needs even before clinical management is necessary. These needs include sexuality education, family planning, access to care, safe motherhood, etc. The themes that HASH has chosen to focus on (STIs, Adolescent SRH, Maternal health and HIV) are pertinent areas for intervention in this space.

As a long-term practitioner in obstetrics and gynecology, I see that AI offers a new approach to improve MSRH indicators in Africa. It has the potential to promote informed decision making in health systems and to overcome the limitations that have prevented the intended effectiveness of health policies.

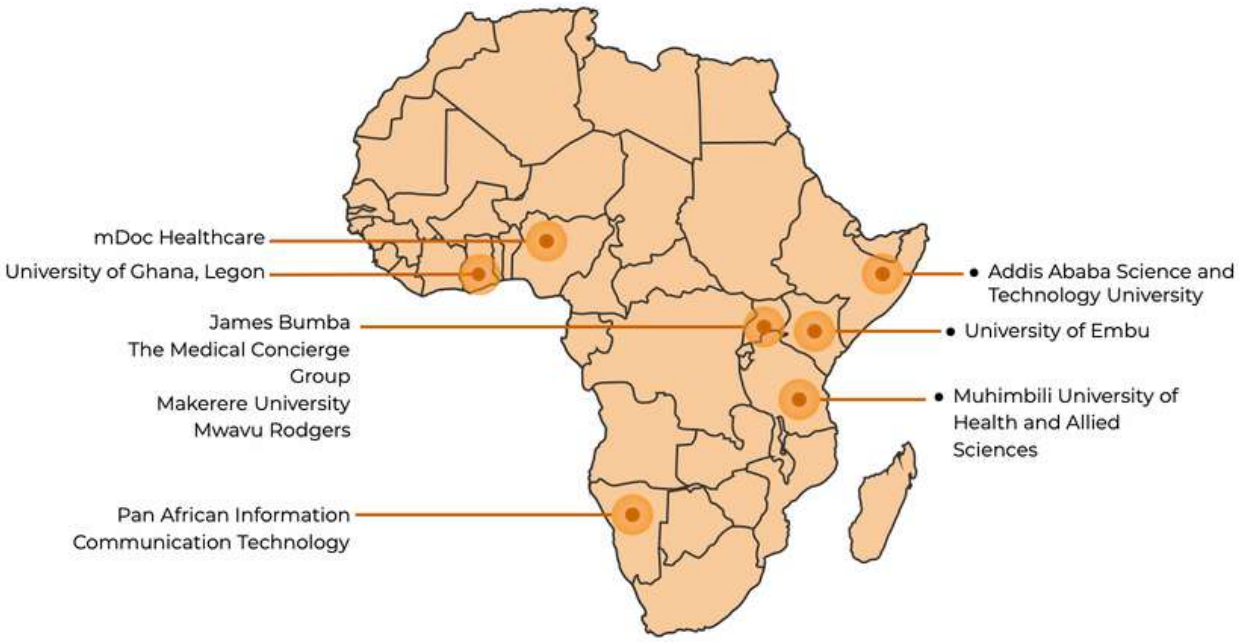
As a reviewer for the HASH RFA I was impressed by the caliber of applications and inspired by the promise that these innovations hold. I am looking forward to the outputs and I will be watching closely to see what comes out of the HASH subgrantees.

LIST OF SUBGRANTEES

Subgrantee	Country	Theme	Study title
mDoc Healthcare	Nigeria	STI	Harnessing the power of Artificial Intelligence to augment patients' knowledge , understanding and behaviours with Sexually Transmitted Infections
Addis Ababa Science and Technology University	Ethiopia	STI	Sexually transmitted disease monitoring and assistance tool design in Ethiopian higher education institutes
James Bumba	Uganda	Maternal Health	Prediction of miscarriages among women seeking antenatal care in Uganda: A machine learning approach.
Pan African Information Communication Technology	Namibia	Maternal Health	Machine Learning for identifying teenage patients at risk of gestational hypertension
Makerere University	Uganda	Maternal Health	A Machine Learning-aided Platform for Point-of-Care Pregnancy Risk Assessment from 2D Ultrasound
The Medical Concierge Group	Uganda	HIV	Using Machine Learning and Artificial Intelligence (AI) modeling to identify high-risk sub-population eligible for PrEP and willing to pay for the services.
Muhimbili University of Health and Allied Sciences	Tanzania	HIV	Artificial intelligence for screening of TB among people living with HIV
University of Ghana, Legon	Ghana	Adolescent SRH	Utilizing AI to Promote Sexual and Reproductive Health Outcomes for Adolescents with Disabilities in Ghana
University of Embu	Kenya	Adolescent SRH	A Chatbot to enhance HIV testing, status awareness, and status disclosure among adolescent boys and girls and young men and women in Kenya
Mwavu Rogers	Uganda	Adolescent SRH	Leveraging Artificial Intelligence techniques to inform choice of modern contraceptives among adolescent girls And young women.

Adolescent SRH - Adolescent Sexual and Reproductive Health*

GEOGRAPHICAL DISTRIBUTION OF SUBGRANTEES



MORE INFORMATION ABOUT THE NETWORK

Currently, there are many pockets of AI work being done in Sub-Saharan Africa. So far, HASH has been able to connect some of the individuals and organizations that are in the AI and MSRH space in Africa. Combined, these parties can be a strong platform to promote AI research and development, influence policy and improve health systems in our local context. However, many other pioneers have not been included yet. We intend to harness this opportunity by establishing a formal Network.

The HASH Network welcomes enthusiasts, researchers and organizations working in the AI and/or MRSH space. The overall goal of the Network is to create a collaborative platform for developing resilient and sustainable systems for MSRH through responsible AI. The HASH subgrantees and Consortium are the founding members of the HASH Network. Look out for more information on the Network and how you can be a part of it.

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