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Digital Transformation Center Rwanda

Digital Transformation Center Rwanda Quartery Progress Report

January - March 2024

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Introduction

Welcome to the latest edition of our quarterly report, where we provide a comprehensive overview of the Digital Transformation Center Rwanda's recent endeavors and accomplishments. As we delve into the contents of this report, we invite you to explore the diverse array of initiatives aimed at driving innovation, empowerment, and progress across Rwanda's digital landscape.

In this edition, we highlight a wide range of impactful projects and programs spanning various focus areas, each designed to address critical challenges and drive positive change within our communities. From empowering women through digital literacy and capacity-building initiatives to harnessing the potential of Artificial Intelligence for climate action, our efforts are guided by a commitment to leveraging technology for social good and sustainable development.

Throughout this report, you'll find insights into our work across key domains, including ecosystem-building activities, public sector innovation, and initiatives aimed at fostering digital inclusion. From the National Robotics Program to the Innovate Africa Challenge on AI for Climate Action, each initiative represents a step forward in our collective journey towards a more digitally empowered and inclusive Rwanda.

As we reflect on the accomplishments detailed within these pages, we extend our gratitude to our partners, stakeholders, and collaborators whose support and dedication have been instrumental in driving our success. Together, we remain steadfast in our commitment to advancing Rwanda's digital transformation agenda and creating a brighter, more prosperous future for all.

Thank you for joining us on this journey of innovation and impact. We invite you to delve into the pages that follow and discover the stories of transformation and progress that define our shared mission..

2. Policy Developments and Dialogues

2.1 Awareness raising campaign for the National AI policy in Rwanda.

In collaboration with the Government of Rwanda, FAIR Forward Afri-media, are committed to drive AI innovation responsibly. As part of this commitment, an awareness campaign has been launched. The primary objective is to advance the implementation of the National AI Policy by fostering consensus and enhancing the capacity of diverse stakeholders in society.

The campaign is currently underway, encompassing various initiatives such as the creation of a sub-web page dedicated to the national AI policy and the development of an awareness roadmap. Additionally, efforts are focusing on organizing the first workshop on ethical AI and releasing the inaugural social media content related to the national AI policy.

In the interest of promoting the understanding of AI in Rwanda, GIZ in partnership with UNESCO & AFRI-MEDIA LTD organized a 4-day training of journalists, the training has an objective to equip journalists to produce comprehensive and specialized coverage of AI and information technology by equipping them with AI skills and fostering a community of expert reporters.

3. Solutions & Innovation

3.1 Landslide Monitoring Pilot

The landslide monitoring project concerns the development of a landslide susceptibility map based on available data (e.g., meteorological, land cover, hydrological, geospatial etc.) and an artificial intelligence model to predict landfall. This is to support government response to landslide disasters.

For this project, the Rwanda Development Agency (RSA) is the key steering partner. They face obstacles in the development of the landslide susceptibility index, in particular related to the incorporation of meteorological data. GIZ has provided support by connecting RSA with a data science expert with sectoral experience for knowledge-exchange on potential solutions and to assess other needs within the project.

3.2 Data and Artificial Intelligence for Crop-type Mapping and Crop Yield Prediction

The project's objective is to develop a crop-type map based on available data (e.g., satellite imagery, geospatial data, etc.) and an artificial intelligence (AI) model to classify different types of crops in Rwanda. Later, this is to be used as input for the development of an AI model the predicts crop yield across Rwanda. Ultimately, this is to support government policy and response on agricultural planning and food security.

In collaboration with the Rwanda Space Agency (RSA) and the Ministry of Agriculture (MinAgri), GIZ has designed an evaluation criterion and conducted market research on local and regional service suppliers for the development of AI-based crop-type mapping solutions.

4. Ecosystem

4.1 Innovate Africa Challenge on AI for Climate Action

The objective of Innovate Africa Challenge on “Artificial Intelligence (AI) for Climate Action” is to support the creation of more initiatives at the intersection of climate action and AI, democratize AI and promote local AI innovation for sustainable development in Ghana, Rwanda and Kenya. Its objective is to foster innovative uses of AI to mitigate the impacts of climate change and/or to support climate adaptation efforts in the African continent, while strengthening the AI and start-up ecosystem.

The launch call of Applications and Call or partnerships has been launched, with over 900 participation interest. An information ion webinar will be hosted Thursday 18th April 2024, to provide a platform for interested participants to engage and ask questions.

For more info: https://smartafrica.org/innovate-africa-challenge/

5.2 Robotics Community of Practice

Robotics CoP is a place for professionals, enthusiasts, members of the education sector, and anyone who is curious to come together share knowledge, skills and experiences, in the goal of advancing the Robotics industry in Rwanda.

On March 7th we conducted a community meet-up with the theme of: "Exploring the World of Robotic Manipulation: Unleashing the Potential of Arm Robots." A turn up of more than 25 individuals exchanged on various arm robots design standards and a demonstration was done by Ing. Bereket A. from Ellilta Industrial and Business group.

6. Digital Literacy & Capacity Bulding

6.1 National Robotics program

This project aims to support MINICT and MINEDUC to integrate the national robotics program into the national curriculum. The project involves MINICT, MINEDUC, REB, RTB, and 5 solution providers as key stakeholders. Below is a summary of the progress:

- 5 solution providers were contracted by GIZ to develop and pilot/test their solutions with at least 4 schools per each. Those solution providers are Keza Future Education Lab, Kwaanda Lab, Narada ltd, Hills Electronics ltd, Creativity Lab

- The program was officially launched by the Minister of MINICT and Minister of MINEDUC on 15th March 2024

- All solution providers have presented their drafted solutions to the REB and RTB curriculum teams and they are now working on the feedback until the end of May.

- The list of the schools that will be part of the piloting/testing phase was shared by REB and the schools were officially communicated. We are waiting for RTB to do the same as well. The solution providers are expected to start engaging with the schools, teachers, and students in mid-June 2024.

6.2 Digital Literacy for People with Disabilities.

This is a project to support people with disabilities to get training on basic digital literacy and supporting the visually impaired people on access to assistive technologies. The training phase ended last year where 400 people with disabilities were trained across the country through 10 organizations that support people with disabilities.

We are in a process of procuring assistive technologies that will be distributed among three organizations that support people with visual impairment.

6.3 Training of 1000 Women in Business in Kigali

In an effort to enhance digital literacy and technological capabilities members of PSF Specialized Cluster were trained. Along with procurement of 40 computers for PSF's training space 'Entrepreneur's Desk'. This initiative aimed to equip our entrepreneurs with the necessary tools to thrive in an increasingly digital world.

As part of our holistic approach to empowerment, a digital literacy training program was also launched for 1000 female members of the cluster. Despite initial challenges with mobilization, the training sessions were conducted with a commendable level of

6.4 AI & Data science training program for Women

The AI4Women training program emerges as a strategic response to the global gender imbalance within the AI sector, particularly focusing on rectifying this disparity in the Global South. Presently, less than a quarter of AI professionals worldwide are women. This contributes to biased AI services due to the inadequate inclusion of experiences from women and marginalized groups during technology development.

This new training program is being provided by Huzalabs in close collaboration with the Move beyond consulting from South Africa and Blossom Academy from Ghana, is specifically designed for women aged 18 to 35 in Rwanda, encompassing various socio-economic, geographic, and educational backgrounds. With an emphasis on those with limited or no prior experience in data science, AI, or coding, the program aims to empower women with essential skills.

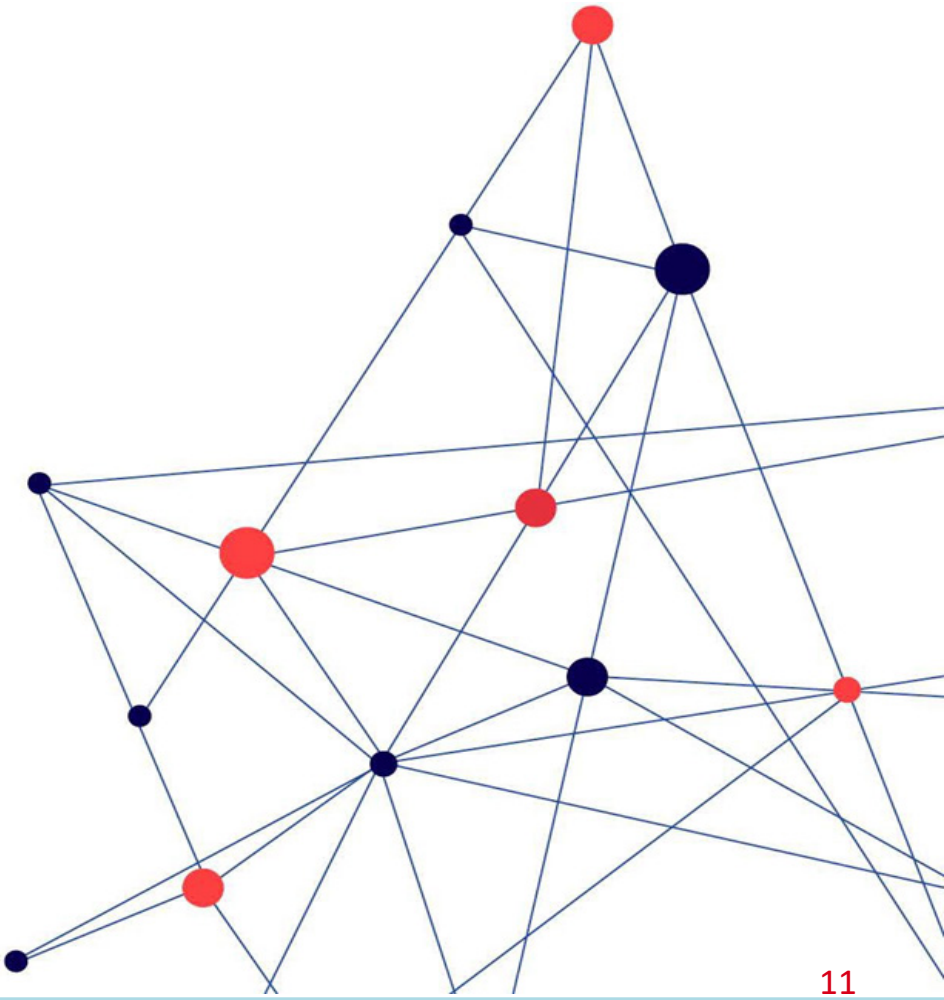
A certification by Intel at three proficiency levels, namely Level 100 (Practitioner Certificate), Level 200 (Professional Certificate), and Level 300 (Producer Certificate), adds a structured framework to the training. That way, the training marks a significant stride towards enhancing inclusion and skill development in AI.

6.7 RFA Training

The RFA (Rwanda Forest Authority) is a training was completed in collaboration with the Ministry of environment and RISA to help train 54 country wide stakeholders of RFA on the new tree tracker tool to be used country wide supported by Govstack.The trainings was for 2 days hosted at the DTC.

7.2 First Lego League 2024

In partnership with Ministry of ICT and Innovation we supported the First LEGO League Competition that happened on March 16, 2024. The event brought together more than 600 student participants from five countries namely: Rwanda, Uganda, Botswana, Cameroon, and Nigeria. Our contribution to the success of the event was not only recognized by the organizers but also H.E Paul Kagame. “Robotics and artificial intelligence are outstanding ways to learn science, engineering, technology — and also teamwork. We are very happy with the results of the national robotics program and competition, and the A.I. Hackathon. I want to make a small contribution toward this effort, especially to the participants, Rwandans, people from Botswana, from Nigeria, from Uganda, those who are here with us. I want to give our young people a laptop each. ” President Kagame | First LEGO League Competition.



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