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UNDERSTANDING THE ECOSYSTEM: THE CASE OF DOT

The **Digital Opportunity Trust (DOT)** is a non-governmental organisation that promotes empowerment and provides entrepreneurship training to young people in Africa, the Middle East, Latin America and Asia. DOT Tanzania, in collaboration with the Vocational Education and Training Authority (VETA), is implementing a project called FUSION, which integrates two acclaimed DOT programmes – TeachUp! and ReachUp! These two programmes use a unique peer-to-peer social learning model to embed change in schools and communities.

Understanding the ecosystem in vocational education has played a key role in enabling DOT to deliver its programme. Educational practices and policies in Tanzania regulate the implementation of new educational practices and innovations, and it would be virtually impossible to scale up an educational innovation without a strong institutional partner with solid connections to the government. With digital innovations it is important to consider the current technical environment and for national scaling to use existing tools and structures where possible.



ReachUp! youth beneficiaries at a Folk Development centre in Pwani Region.

Youth unemployment is a nation-wide problem in Tanzania. Although available government statistics show unemployment in Tanzania at 12.7%,¹ studies have indicated that unemployment among young people is higher than 50%,² particularly in urban areas.

DOT's FUSION project is a robust and innovative response to what has been described as an unemployment crisis. The approach and solution is to help young people become business and job creators who leverage digital solutions to access growth sectors and value chains. TeachUp! brings

¹Tanzania Human Development Report (THDR), 2014

²State of Youth in Tanzania, Restless Development, 2011

innovative use of technology, new learning methods and digital skills content to the classroom, and ReachUp! brings digital skills, workforce skills and entrepreneurial empowerment to out-of-school, out-of-work young people in the community.

The FUSION project partners with VETA to ensure compatibility and alignment with the Tanzanian education ecosystem. FUSION aims to transform the way in which teaching is accessed and provided in VETA centres, making them more inclusive and youth led. Digital skills are taught by integrating ICT exercises into the teaching of business skills, and these lessons take place in VETA IT labs instead of the normal classroom. Operating 29 training centres and regulating an additional 650 private vocational education centres, VETA extends to all regions of the country. VETA represents a significant conduit for scaling and sustaining innovation in education and economic empowerment across Tanzania.

The FUSION pilot has reached 800 VETA students, 150 VETA trainers and 1,800 out-of-school young people through VETA centres and non-VETA TVETs (Technical Vocational Education and Training Institutions) in Dar es Salaam and Morogoro.

PRINCIPLES FOR DIGITAL DEVELOPMENT: UNDERSTAND THE ECOSYSTEM

- Consider the regulatory environment, including policies, laws and other rules that could affect the ways in which tech-supported development projects are owned and operated.
- Consider the political environment, including how changes in political parties could change personnel, structure and/or mandates of government ministries.
- Consider the technical environment, including standards, platforms and tools, to maximise interoperability and encourage reuse and/or adaptation of existing tools as relevant.
- Consider all actors, including institutions, communities and individuals.

UNDERSTANDING AND WORKING WITHIN THE VOCATIONAL EDUCATION ECOSYSTEM

To increase the likelihood of the success and sustainability of FUSION, DOT needed to understand and work with the Tanzanian vocational education ecosystem. In the project design phase, they included and considered the regulatory, political and technical environment and the institutions, communities and individuals they would be working with. Through this process, VETA was identified as an ideal partner for implementation for several reasons: VETA is a government organisation with a mandate to coordinate, regulate, finance, promote and provide vocational education and training in Tanzania. VETA has 29 of its own teaching centres across the country and regulates a further 650 private vocational education centres. VETA teaching centres have computer labs with some level of connectivity to the internet.

The partnership between DOT and VETA was initiated through conversations about the role of ICT, entrepreneurship and leadership training in transforming the lives of young people graduating with technical skills from VETA. As a result of these conversations DOT began partnering with VETA to implement DOT's economic empowerment programme, ReachUp!, to VETA students in two VETA centres in Dar es Salaam. The programme was received positively by students, and in 2014 VETA expressed an interest in mainstreaming digital technology into its curriculum, leading to the birth of the FUSION project. A formal partnership was established and in 2015 DOT signed a three-year Memorandum of Understanding with VETA. Through this agreement VETA has committed to ensuring the project's sustainability by adopting best practices in vocational education that result from the project pilot.

In May 2015 HDIF awarded DOT with a grant to expand the project to VETA centres in Pwani and Morogoro regions and to open the programme up to out-of-school young people. The project is now being implemented in five VETA centres and non-VETA TVETs in the surrounding communities, creating a unique opportunity for young people who are not in school to receive ICT and entrepreneurship training. After the first year, DOT reported that the family income of

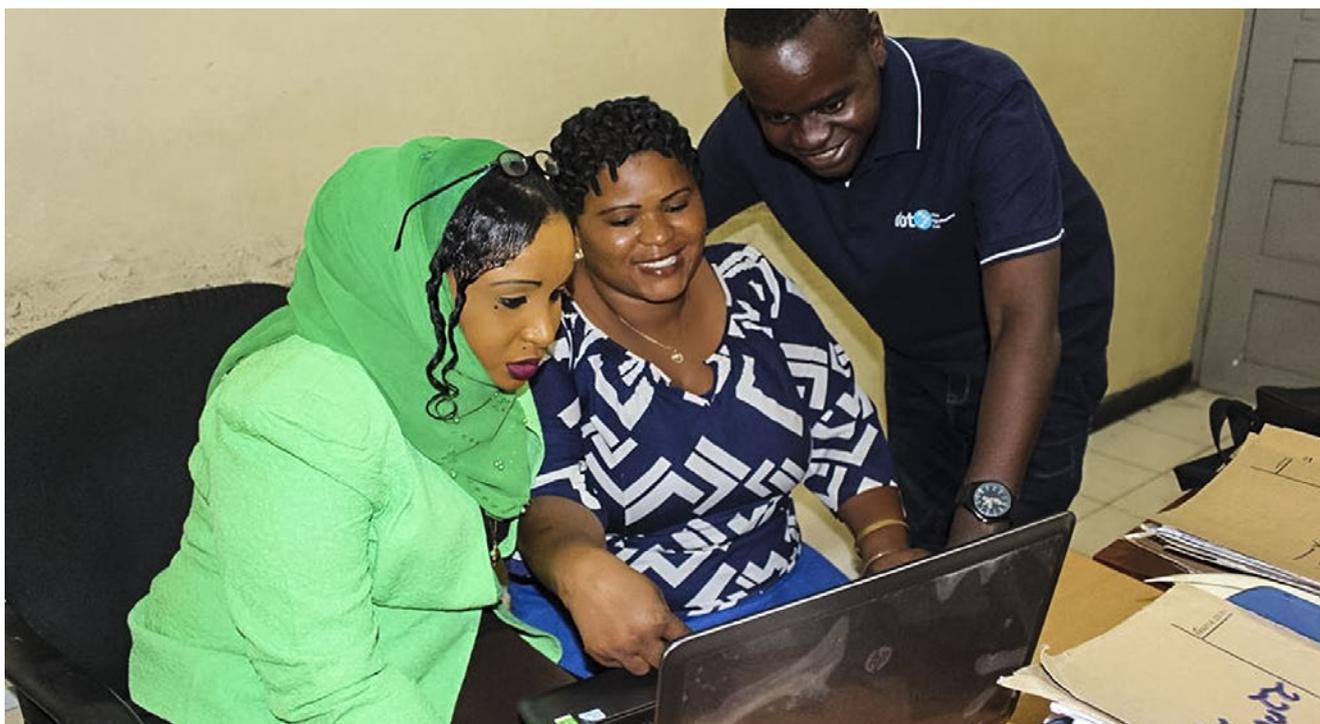
over 60% of ReachUp! participants had increased six months after the training, indicating the strengthened economic security of young people in targeted communities.

The main challenges for the project related to the role and participation of the teachers, a vital part of the education ecosystem. Teachers initially lacked the motivation to engage with the programme, as the benefits of the approach were not obvious to them. For some teachers this would have been their first time using ICT in the classroom. Teachers also expressed concern about the extra workload that would be required in preparing these classes.

Attempts to train the teachers as a single group in one location failed, as teachers were reluctant to talk about their own lack of digital literacy in front of colleagues. In response to this, DOT offered one-to-one coaching sessions and teacher facilitators to help prepare the lessons and support teachers in the classroom. This strategy proved successful in building teachers' capacity and readiness to use ICTs in teaching approaches. Innovative learning platforms such as Google Classroom are increasingly being used by teachers to improve student learning outcomes, and civil engineering and electronics teachers are now using ICT to simulate engineering practices with students.

LESSONS AND RECOMMENDATIONS

- Education is a politically sensitive issue in every country around the world, and as a result understanding the ecosystem is likely to play a much more significant role in this sector. In education, the ecosystem includes the public and private education sector that already exists. If digital innovations are going to be successfully introduced in education in Tanzania, have an impact and become sustainable, this principle needs to take priority over others.
- The problems relating to digital innovations in education are less to do with the proposed new technology and more to do with understanding existing policies, regulations and existing ways of working. In Tanzania, these challenges can only be addressed by developing relationships with people in local communities and schools and with local, regional and national governments.
- Neglecting the fundamental role of the teacher when introducing new technology is common in classrooms around the world. Tanzania is no exception and developing a more in-depth knowledge and understanding of the current role of teachers in Tanzania will be essential if this and future projects are going to have an impact and become sustainable.



VETA Chang'ombe teachers receiving a tailored edutech session from DOT's Teacher Facilitator, Emmanuel Mujuni.

ABOUT THE PRINCIPLES FOR DIGITAL DEVELOPMENT

The Principles for Digital Development are designed to institutionalise lessons learned in the use of information and communication technologies (ICTs) in development projects. They were written by and for international development donors and their implementing partners, but are freely available for use by all. The principles are 'living' guidelines, intended to serve as guidance rather than edict, and are meant to be updated and refined over time.

Further reading

- <https://tanzania.dotrtrust.org>
- <http://digitalprinciples.org>
- www.youtube.com/watch?v=PexsioZ6lKo
- www.veta.go.tz/index.php/en

(All links accessed 9 October 2017)

Credits

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Disclaimer: All opinions included here represent those of HDIF and not those of DFID.

HDIF'S APPROACH TO DIGITAL INNOVATION

HDIF's Digital Approach sets out actionable steps for using the Principles for Digital Development to support cross-sector technology adoption and scaling-up for innovation-related practitioners (including HDIF and its partners) and policymakers in Tanzania. The prevalence of digital innovation in the HDIF portfolio presents an opportunity to generate learning from grantees who are putting the principles into practice in a Tanzanian context.



The Human Development Innovation Fund (HDIF) aims to identify and support innovations that have the potential to create social impact in education, health and, water, sanitation and hygiene (WASH) across Tanzania. With a focus on market driven solutions, HDIF catalyses the development, testing and scaling of innovative models of service delivery, information and communication technologies for development (ICT4D), and product solutions in health, education and WASH.

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HDIF aims to contribute to the global dialogue on the principles through the Digital Impact Alliance (DIAL), the stewards of the digital principles, who facilitate lesson-sharing around digital development and promote their adoption globally. The HDIF digital framework for learning borrows from DIAL's materials and content. For more information see <https://digitalimpactalliance.org/>

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