



1 World Connected
Data-driven Research to Bring Billions Online

TUNAPANDA INSTITUTE

PROVIDING DIGITAL SKILLS FOR THE YOUTH IN KENYA



Users at the Tunapanda Institute. Photo credit: Tunapanda

EXECUTIVE SUMMARY

The Tunapanda Institute is a nonprofit organization founded in 2014. Located in the Kibera quarter of Nairobi, the institute offers free training programs for students between the ages of 18 to 25 in information and communications technologies (ICTs), design, and business. By providing residents of the city's largest slum with the skills and equipment to qualify for entry-level jobs in tech, Tunapanda aims to empower communities by shrinking the digital divide. It is currently developing a project to target even younger residents with ICT education and digital resources by building a community network to connect Kibera's 300 schools.

Keywords: youth, digital literacy, rural, Kenya

CONTEXT

According to the Ministry of Public Service, Youth, and Gender Affairs of Kenya, the unemployment rate among youth in Kenya is estimated at around 80 percent. Online jobs are expected to help resolve the unemployment rate among the youth in the country, however, of the 80 percent of unemployed youth in Kenya, 90 percent of them lack vocational training. As a result, the government is supporting public-private partnerships that develop and bolster youth empowerment programs and make them more employable.

There have been several initiatives taken by the government, private sector, and civil society to improve digital literacy skills for youth, especially those in remote areas. One of the largest such training programs, the Barefoot Digital Literacy Program, was initiated with Google, Microsoft, and the national government's Ministry of Information Communications and Telecommunications. Having facilitated by the Ajira Digital Programme in 2016, the project aims to train 1 million youth to be digitally literate to improve their employment likelihood.

Kenya			
Population (UN, 2015)	46,748,617	Fixed broadband subscriptions (%) (ITU, 2016)	0.33
Population density (people per sq.km) (UN, 2015)	80.55	Mobile cellular subscriptions (%) (ITU, 2016)	81.28
Median household income (Gallup, 2006-2012)	US\$ 1870	Individuals using the Internet (%) (ITU, 2016)	26
Education (Mean years of schooling) (UNDP, 2013)	Male: 7.1 Female: 5.4	Individuals using the Internet by Gender (%) (ITU, 2016)	N/A

PROJECT DESCRIPTION

The Tunapanda Institute's training programs were established to supplement hard-to-access traditional education structures. Education in East African slums and rural areas is often unaffordable or lacking in quality. Both dropout rates and demand for educational opportunity are high. Tunapanda provides a platform with access to educational content geared toward 21st-century skills. Its content is locally sourced, high quality, and geared toward immediate employment.

The institute is in the process of developing a larger, school-based initiative to provide access to digital literacy and economic opportunity. The 300 schools in Kibera will be given Internet access and devices, and connected by a common sharing network. Teachers and school administrators will be trained to understand and communicate the value of ICTs to their students as well as integrate them into their learning models. By building a platform that connects the Kibera schools, Tunapanda hopes to change the culture of education in the city.

Currently, the schools relate to each other as competitors. Tunapanda’s network would rather shape a collaborative community in which educational professionals in the area focus instead on the common goal of maximizing student potential.

Tunapanda also provides other services such as market research, media production, software and web development, and e-learning, which allows the organization to provide free, offline, open-source educative materials, and to run their digital literacy training free of cost.

Project specifics			
Technology	Wireless Internet	Training	Free training programs on ICT, design, and business training to prepare for entry-level tech employment.
Year of connectivity	2014	Cost to users	Undecided
Geography	Urban	Total cost of program	US\$ 10,000
User profile	18-25 year-old school children, teachers, and administrators	Associated organizations	International Center for Theoretical Physics Internet Society Virtual Learning Solutions Young Enterprise Education in Schools (YEES)

PROGRESS AND RESULTS

As of summer 2017, the organization has trained eight cohorts, each made up of 25 people. Typically, the institute receives more than 300 applications for each cohort, demonstrating that demand for ICT training has been and remains high.

Of the institute’s graduates, 85 percent have found employment through the institute’s placement assistance. The community network connecting the slum’s 300 schools is still in its early stages. Infrastructure is in development, and the Internet Society is providing equipment. Funding and Internet service provider (ISP) partners are currently being sought.

While the Tunapanda Institute is not yet directly expanding its operations, it does actively partner with organizations looking to replicate their projects. One such project is currently in development in Kawangware, a smaller slum in Nairobi. Another project is running in Kakuma, a refugee camp in northern Kenya.

CHALLENGES

Lack of technical expertise – Only one among the team running the Institute has experience in computer networking, which poses a challenge to swift deployments.

Regulatory uncertainty – In Kenya, there is not yet a regulatory framework for community networks, so Tunapanda uses unlicensed spectrum. With the potential it has to scale, the Institute also runs the risk of being perceived as a risk to other ISPs and be shut down.

Lack of funding – Tunapanda’s projects have progressed relatively slowly, as they have an entirely volunteer workforce and must devote a lot of time and energy to fundraising.

Community resistance – Kibera is a slum that has been well accustomed to nongovernmental organizations (NGOs) and charity contributions. A pay-for-service model like the one that Tunapanda is envisaging for its schools project is unfamiliar. The institute will be challenged in altering the community mindset from charity fatigue to active, collaborative investment.

TUNAPANDA’S SUGGESTIONS FOR FUTURE PROJECTS

Engaging local communities is useful – In Tunapanda’s experience, setting up effective ICT systems needs to involve the targeted community. Tunapanda noted that its early stages involved the institute’s members coming up with ICT solutions to Kibera’s problems and then running into roadblocks as they deployed these solutions. Tunapanda’s eventual success involved prioritizing community outreach and collaboration a major element of their development and deployment. Brainstorming solutions in isolation from the community the solutions are meant to aid means that these solutions are unlikely to be adopted.

Providing local content is necessary – Online educational platforms rely on local content for success. Educational quality is reliant on the linguistic and cultural particularity of its content. Tunapanda’s work has determined that the Internet has potential in Africa, but without robust local content, infrastructural development alone will likely not have the desired impact.

SOURCES

Project website: tunapanda.org