



Strategic Plan
2022-2024

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Executive Summary

We are Technologically Literate Africa, also known as TechLit Africa. We teach self-efficacy through digital skills in rural African schools. We believe that the internet could lessen African poverty, but rural Africans lack digital skills and computers to gain from the digital economy, even though developed countries have an abundance of used computers.

We run vertically-integrated computer classes in rural African schools with used computers. In 2021, we ran a successful pilot program: we expanded to 10 computer labs in rural Kenya, serving over 4,000 students. From 2022 to 2024, we plan to grow tenfold annually to prepare millions of students for the digital economy before 2025.

Opportunities in Rural Africa

Software and the internet have transformed how the world learns, communicates and does business.

The problem is: those who have the most to gain from modern tools are often left without them, despite the vast surplus of devices that are thrown away every year.

The economic condition of Sub-Saharan Africa is poor, hosting some of the lowest GDP per capita and purchasing-power figures.

Research shows that the adoption of technology in education, business and government can raise GDP, lower unemployment and improve the quality of life. In most rural areas in Africa the Internet is still too expensive to use in education.

Rural Africans lack tools and skills to leverage the digital economy. Despite being well-educated, a great swath of African talent does not fit into the fast-paced technological world. If we fail to fill the widening gap between the market requirements and available skills, we will be unable to uplift African families out of poverty.

Despite the lack of computers available in rural Africa, organizations in advanced countries upgrade computers every three to five years. They have millions of spare machines per year and the problem of what to do with them.

About TechLit Africa

Mission

Our mission is to see every student in Africa prepared to prosper in the digital economy.

Vision

Our vision is an Africa with world-class economic mobility from any region.

Values

Self-efficacy

Above all else, we value self-efficacy. Self-efficacy is a concept from psychology: it's a person's belief in their abilities and that their actions affect the world around them. Our classes are self-guided and project-based whenever possible, leading to students who are intrinsically motivated and able to take on various challenges, rather than merely being trained for specific tasks. Anyone taking part in the digital economy must be self-reliant and self-sufficient. The most important skill in today's economy is the ability to re-skill.

Agility

We have a bias for agility. It's no mistake that we build our own software, hire passionate teachers, or have a close board of directors. We do those things because they enable us to innovate, make quick decisions, and ultimately survive rapid growth. When deciding between priorities, we favor innovation and flexibility over stability.

Equity

Equity is our call-to-arms; we do not abide inequality. We hire from remote areas. We don't require degrees. We train and promote from within. We enforce individual learning for us to recognize learning gaps, to reduce bullying, and to reduce gender inequality. Equity is a driving force for our decision making, trumped only by our ability to scale and our mission to promote self-efficacy.

The Team

Directors

Our executive director is Nelly Cheboi, a deeply driven native Kenyan who learned software engineering after taking an undergraduate scholarship in the United States. During her time in college, Nelly saved enough money to build a school in her hometown, effectively providing her family a stable income and lifting her family out of poverty.

Our chief operating officer is Tyler Cinnamon, an ambitious self-taught programmer who grew up immersed in technology. A non-traditional learner, Tyler spent five years touring as an acrobat before diving into computer programming, which he taught himself using digital tools readily available on the Internet.

Our newest director is Moha Ismael, a charismatic and purposeful Kenyan who has done everything from journalism, music production and computer repair to acting. Before joining TechLit Africa, Moha was already empowering the youth in his community in every way he could. Now he teaches TechLit students, locates new schools for computer labs, networks computers, and trains teachers in TechLit methods.

The Board

Our board chair is Jane Bahls, who has decades of experience directing nonprofits. Jane brings order, best-practice guidance and optimistic wisdom.

Jack O'Donnell is our domain expert, having managed computer refurbishment at a similar nonprofit for over a dozen years, shipping more than 10,000 machines.

Matt Pelton of KPMG is our financial expert and corporate advisor, bringing years of experience working on African development.

The Kenyan Team

In Kenya, we have a rapidly-growing team of passionate teachers. Our hiring and knowledge-sharing practices keep the team involved and connected. We have teachers that are nurturing, bold and dedicated. Our goal is that every one of our teachers either becomes a leader within the organization or, through their training in TechLit Africa, finds gainful employment to lift their entire family out of poverty.

Informal Advisors

We have benefitted from the advice of experienced leaders in high-growth nonprofits and software startups.

Partnerships

Tech nonprofits have helped us develop our vertical integration strategy, such as World Computer Exchange, Closing the Gap, Internet in a Box and One Laptop per Child. These organizations, through very different approaches, have paved the way for our success.

Kenyan nonprofits have helped us navigate building our operations in Kenya. Dandelion Africa and other organizations in our early years helped us form our Kenyan community benefit organization.

Local Kenyan schools have helped us develop our program from experimentation and through our pilot program, including Zawadi Yetu, Mogotio Primary, Saint Mary's Primary and other schools.

Many organizations have donated computers, such as Ibotta, SiriusXM, Augustana College and many others.

And finally, many organizations donate money such as Artisan Talent, Lemonade and Trade Desk.

Plan for Growth

Disrupting Poverty

We want to bring all of rural Africa into the digital economy. We believe doing so will disrupt poverty in rural Africa, because computers and the internet are both the most powerful means of production and largest market in human history. The barrier to entry in the digital economy is simply access. And so, we want to ensure consistent access for all primary school students across rural Africa. In order to reach that kind of scale, we have aggressive annual growth targets.

10x Annual School Growth

To achieve our long-term goal, we are targeting 10x more new schools every year. In 2021 we joined 10 schools, in 2022 we will join 100 schools, 2023 will be 1,000 schools, and so on. 10x annual growth is a forcing function. Successful startup founders say "do things that don't scale", and wise software engineers say "premature optimization is the root of all evil". We are doing things that don't scale to avoid premature optimization, then adapting to scale when appropriate. Every year, we target 10 times more schools than we have, which gives us one year to adapt to a new scale. This is why we have only developed simple heuristics for scale, like our "hub & spoke" model.

Collections Enables Scale

Our financial models predict that the total cost of our program will grow proportionally to our scale. If we were to pay for local operations ourselves, we would have an exponentially increasing fundraising target, making scale an unreasonable financial problem. However, if schools fund their own operations, our fundraising target becomes logarithmic, making scale a reasonable franchising problem. For a school with TechLit computer classes, the cost is constant, and only a small addition to their current expenses (1-10%). We call this revenue stream "collections".

Initial Philanthropic Partners

We do not have sustainable local operations yet, because we are still experimenting with collections. TechLit Africa is currently fundraising for TechLit Kenya, rather than schools paying for themselves. For us to continue growing while improving local revenue, we are partnering with international philanthropists operating schools in Kenya. Mombasa Relief Initiative and the Leo Project are two examples of organizations who operate clusters of schools in Kenya. They

are happy to pay the salaries of our teachers, so that we can instead fund computer shipments. Over time, we must rely less on philanthropic partners.

Hub & Spoke Model

The next-largest challenge to our growth is organizational. Operating only one hundred schools will require more than one hundred people spread across Kenya. Our targets years from now will require tens of thousands of people spread across many countries. Our solution to this problem, and many problems like it, we call our "hub & spoke" model. Our first hub was a school room in Mogotio, Kenya where we store computers and meet with our team. From that one hub, we can run classes in dozens of schools. In this model, schools are like the spokes on a wheel. All those schools connected to the hub share the cost of storage, transportation, internet and human problems like hiring, training and knowledge sharing. For us to reach 100 schools, we will only need a few hubs. For us to reach ten thousand schools, we will only need a few hundred hubs.

International Federation

Other countries have distinct cultures and rules than Kenya. That is why each country we enter will start a distinct organization, to adapt our program and operations to their own culture and rules. Originally we had TechLit Africa, which is only responsible for collecting, shipping and recycling equipment. Now we have TechLit Kenya, which is only responsible for maintaining equipment and teaching classes in Kenya. In 2023 we will probably have TechLit Tanzania and TechLit Uganda, responsible for maintaining equipment and teaching classes in Tanzania and Uganda. Over time, we will develop a more nuanced relationship with these distinct organizations. It may take the form of a business format franchise, for example.

Risks & Contingencies

Revenue

We believe that schools and parents value quality education, and that they're willing and able to pay for their children to have one-on-one computer access twice per week. We may discover that either they don't value education as much, that they're unwilling or unable to pay for so much computer access, or that our team is unable to convince them so or collect as much revenue.

If that were to happen, we would probably not be able to scale, because we would need to fundraise exponentially more every year to reach our goals. We could try to raise exponentially more from international donors or convert TechLit into a government program, but we don't believe our program would succeed without local ownership. We could try to reduce our costs by having fewer people on the ground, but we don't believe our program would succeed without sufficient local tech and education support.

The lack of contingencies is why failing to win local revenue is the single biggest risk we face.

People

We believe young people across rural Africa have the potential and drive to handle all operations in rural Africa, and can attain any level of expertise. We may discover that we cannot find the youth we need or that rural African youth have less potential or less motivation than what's required for us to scale. We may discover this in many places, meaning that local hires may not be able to effectively produce financial and impact reports, maintain the hardware and software, recruit and manage people, or safely and effectively teach classes.

Financial and impact reporting, equipment and software maintenance, and recruiting and management can be handled in less detail by third parties, or by TechLit Africa employees. Because we are already paying market rates for these skills, this shouldn't raise our per-hub expenses by more than 100%. We could simply onboard more private schools, or increase the number of schools per hub to offset the increased cost.

Regardless of how talented our educators become, we are building our curriculum as software in a way that students can guide themselves. We have also experimented with older peers guiding younger classes, which works well. We can recruit subject-matter experts to voluntarily lead specialized classes. To adjust to a worst-case outcome, although it's not ideal, we can have existing teachers supervise their computer classes.

Hardware Donations

We believe there are more than enough computers retired every year from corporations to meet our long-term goals, and that corporations will donate them to education in developing countries. We may discover that there are not enough computers available, or that corporations are not willing to donate them. It's also possible that computers are replaced with a new kind of technology. In any of these cases, we can purchase low-cost equipment locally instead of importing donations. The cost to ship and import computers is already high, and purchasing them wouldn't change our model.

Monetary Donations

We believe there are plenty of international donors who would pay for electronics to be re-used and recycled at their end of life. We may discover that we are unable to raise enough money from international donors. If that happens, we could grow more slowly. We could also charge franchise fees to each country organization, like TechLit Kenya, to pay for shipping and imports. Finally, we could just purchase the equipment in-country.

Founders

We believe that we are the best team to disrupt poverty with used computers. We may discover that other teams are better. We expect other teams to take our solution to places that we cannot. That is a successful outcome from our perspective. We may also discover that we are unable to continue for as long as it takes to succeed. We are building a talented organization of youth who have more at stake than us, who could easily take over. As long as we are paying market-value salaries for ourselves, we can also replace ourselves with new international leadership.

Governments

We believe that local and national governments want the program that we are building. We may discover that they don't. If this happens, and we cannot continue operating in some particular jurisdiction, we can move our program to another.

Internet & Globalization

We believe that the cost of internet access will drop quickly. When this happens, corporations like Google can more easily deploy solutions like Google Classroom on Chromebooks. While this would be a win for schools and students, it would be a loss for electronics re-use.