

Maker movement and hope in a developing country context: A community
empowered through hope and creativity

by

Michelle Blanchard

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Abstract

As the world's systems are shifting from an industrial economy where a centralized and individualistic mindset dominates to a creative economy where collaboration and empowerment are prominent, many of our larger institutions are being challenged as ineffective. Certain trends are gaining traction in alignment with a more decentralized model. The maker movement's ecosystem has expanded and fueled entrepreneurial activities, social innovation labs have emerged across the globe aimed at collaboratively solving complex social problems, and technology continues to evolve to enable greater shared access to information, people, ideas and funds. This research will explore the intersection of these themes in the context of international development. It will examine how peer-led and purposeful makerspaces can increase individual and community empowerment, contributing to a more human-centered approach to strengthening start-up ecosystems in developing countries. A case study will focus on the approach taken by Reconstructed Living Labs (RLabs), a social innovation lab located outside Cape Town, South Africa.

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“For to be free is not merely to cast off one’s chains, but to live in a way that respects and enhances the freedom of others” -Nelson Mandela

INTRODUCTION

Our world is currently in a flux of change, where many institutions that were formed during the time of the industrial age are now criticized as being ineffective and in need of adaptation to our more collaborative, networked and increasingly open world. We see this in education, the private sector and not-for-profit organizations, health care, government and also international development. Old approaches are being disrupted with radically different solutions.

A recent example that has gained visibility is within education. Sugata Mitra won the 2013 Ted Prize for his “Hole in the Wall” experiments and his wish to build a place where children can explore and learn on their own and teach others, using resources from a worldwide cloud (Mitra, 2013). He calls it “A School in the

Cloud”. Through his experiments, he found that children have the ability to learn on their own with the right support. He challenges the education system as an institution with a set curriculum and structure that essentially limits the learning potential of the students who fare well in a collaborative and self-directed form of learning. He is currently in the process of establishing seven “schools in the cloud,” where there will be no teachers, curriculum, or separation into age groups. It will be a single room with approximately six computers and a woman to look after the children’s safety. He is essentially applying the logic of the digital age to the classroom, where his defining principle is that the children are completely in charge of their learning. “Access to a world of infinite information has changed how we communicate, process information, and think.

Decentralized systems have proven to be more productive and agile than rigid, top-down ones” (Davis, 2013, para. 6).

Taking from this idea and looking more specifically at international development, there is great potential to reshape how we operate as a society in order to create a sustainable and higher quality of life for a greater percentage of our world’s population. With a view that many institutions such as government and international organizations are not effective or sustainable in their traditional approach, *how might networked and empowered groups of people play a role in developing their own communities?* This research aims to explore this question.

1.0 International Development in the 20th century

The origins of modern humanitarian efforts can be traced back to the International Committee of the Red Cross, founded by Henry Dumant, who saw a need for a neutral party to provide medical care for those battling war in Europe. He prompted the European nations to sign the treaty of the First Convention of Geneva in 1864. Save the Children was founded in 1919 and inspired the first operational model of the modern NGO (Non-Governmental Organization). Many of the other large NGOs such as Oxfam and World Vision came into being after World War II and this was also when multilateral international organizations such as the International Monetary Fund and the United Nations were founded (Nutt, 2011).

1.1 Foreign Involvement in Africa

As we look back at Africa's history and relationships with the western world, the slave trade and colonization were both prominent first introductions.

Throughout the centuries of this unequal relationship, all value was extracted from Africa, including humans, and taken to benefit the foreign colonizer and their needs. This led to an erosion of African people's sense of identity, culture and growth, and is still prevalent in many African countries today (Moalosi, 2007).

Throughout the 1950's to 1960's, most African countries achieved independence from colonization and required more than just humanitarian aid. The view was that there was a need to ensure the right governance was in place in these newly independent countries so that the population could live a quality of life outside of poverty. International development is a term that was born as a result, as it was geared towards countries that gained independence from their western colonizers ("International Development," 2014). It was at this turbulent time that western aid focus moved from Europe to Africa and where globalization started to take form with free trade policies emerging between developed and developing countries. In his 1949 inaugural speech, U.S. President Harry Truman stated it was time to mobilize American scientific and technological knowledge to help speed up the development progress in underdeveloped countries across the world (IDRC, 2005). "For the West, aid became a means by which Britain and France combined their new-found altruism with a hefty dollop of self-interest – maintaining strategic geopolitical holds. For the US, aid became the tool of another political contest – the Cold War." (Moyo, p.14).

As international development work took form, it was led with a similar paternalistic approach as colonization, more imposed and less collaborative, reinforcing their expertise and funds as the means to solve problems to help others who are viewed as less capable. Although despite some successes and good intentions, many solutions failed or did not address the correct problem

and created new ones, often due to a lack in knowledge of the cultural context (Nutt, 2011).

In the 1980's, Robert Chambers advocated that development processes and policies should be created with the marginalized and poor at their centre. He contributed greatly to the widespread acceptance and use of "participatory" approaches in the field ("Robert Chambers," 2014), which led to a shift from paternalistic to more inclusive relationships. An unintended consequence has been that in using these types of approaches, NGO's have been responsible for building societies, to the point where governments of developed and developing countries have offloaded social and health programs onto them (Nutt 2011). This degrading in the role of local governments has led to the people's expectations for improvements being placed on NGOs and further reducing pressure for increased governmental accountability.

1.2 Aid Dependence and Corruption

From 1960 to 2003, 600 billion US dollars of aid has been received by Africa and yet poverty continues to be a rampant issue (Akonor, 2008). Such a large sum of money has been spent, yet basic needs for many people are still not being met. It has not achieved the desired effect and instead we see that:

"Aid has helped make the poor poorer, and growth slower. Yet aid remains a centerpiece of today's development policy and one of the biggest ideas of our time. It should be understood that, like the majority

of the infrastructure aid, much of the poverty-related aid did not come for free. Aid costs money. And unless it's in the form of grants, it has to be paid back, with interest. This point would later come back to haunt many African states." (Moyo, 2010, Introduction).

Over time, aid has led to some African country governments' dependence on it as part of their fixed operating revenues where the "...budgets of Ghana and Uganda, for example, are more than 50 percent aid dependent" (Ayodele et al., 2005) with little repercussions to build sustainable independence.

With many African countries remaining dependent on aid and trade deals being made at the expense of the population and environment, there is also a prevalence of government corruption that combines to accept and reinforce this exploitation. This was further facilitated by the 2005 Paris Declaration on Aid Effectiveness, where donor nations agreed to increase the amount of aid they provided directly to the recipient and no longer rely on NGOs and UN agencies as intermediaries (Nutt, 2011). "The evidence that foreign aid underwrites misguided policies and feeds corrupt and bloated state bureaucracies is overwhelming" (Ayodele et al., 2005). If the money is misspent or is easy money to steal when funneled directly to governments, it makes fighting for control of government power a lucrative endeavor (Moyo, 2010). Corruption costs Africa \$148 billion a year (Ayittey, 2007). This limits the economic growth potential within a country, where conflicts arise and when funds and opportunity are held back from the larger population and controlled to benefit those already with

privilege. With governments not being held accountable, policies often support this inequality and favor western needs, such as use and support of foreign companies for local bids, minimal focus on the informal and traditional economies where you find the majority of Africans, and a lack of domestic infrastructure making it difficult to achieve economic momentum. This leads to high unemployment rates, high political unrest in unstable states, stifled progress and idle hands with little hope for their future.

Ayittey, a Nigerian economist, believes that Africa needs to go back to its roots, which were grounded in a system that “relies on kinship, community and custom more than the individualistic West” (Caceres, 2012). African markets and free trade existed prior to foreigners arriving on African land. “Ayittey believes that free commerce, free movement, free association, and free speech *are the true heritage of Africa*, as reflected in their indigenous institutions” (Caceres, 2012). Natives owned all factors of production and prices were free-floating as opposed to ownership and decision-making lying with their ruler or chief. It was a much more decentralized, collaborative and community-driven system than what we see today. He believes a greater focus needs to be placed on developing the traditional sector, such as agriculture, as well as the informal sector where you find small businesses and which accounts for half of the African labour market and growing (Ayittey, 2007).

Overall, the money and time expended over the past few decades has not led to the level of impact and development expected in Africa. Many critics such as Samantha Nutt, George Ayittey and Dambisa Moyo, have expressed the need for a new model of development.

2.0 A New Focus for Development: Innovation, Collaboration & Entrepreneurship

The international development field is currently evolving due to various drivers such as changing geopolitics, emerging economies, developed world recession and increasing focus on science, technology and innovation (Higgins, 2013).

These drivers have led to less funding and more scrutiny on results and efficiency, bringing change to the forefront where we are seeing more innovation and a breaking of old traditions starting to take place.

Inclusiveness and empowerment is central to what the international development community says is needed to increase impact and progress. The creation of the UN Millennium Development Goals in 2000 primarily involved the developed world. While the act of having set goals and the progress that resulted was seen as positive, the discussion to update the goals as part of the Post-2015 Development Agenda has emphasized the need to include those who are impacted by these goals. Developed countries, who typically dominate the discussion, have pulled back to allow the governments from the developing

world to bring their needs forward. New methods used to gather insights across the globe have included extensive country-level consultations, crowdsourcing sites such as My World 2015 (www.MyWorld2015.org) and World We Want 2015 (www.worldwewant2015.org), and the creation of a big data organization, UN Global Pulse.

Global development organizations are experiencing changes that are causing self-reflection and a need to reexamine their role and the effectiveness of how they operate (Murray, 2014). New entrants have entered the sphere such as private foundations like the Bill & Melinda Gates Foundation and the private sector such Procter & Gamble (P&G). Announced this year, P&G have partnered with USAID in a joint investment of at least \$2 million on health projects aimed at providing clean drinking water in Myanmar through provision of P&G Purifier of Water packets (Popyk, 2014). With these private foundations and private sector organizations having more dollars and greater credibility, it is leading to a decrease in global development organizations' overall influence.

The private sector's entrance onto the scene has been primarily to create a positive reputation in the eyes of their customers, to create brand awareness with potential future customers from the bottom of the pyramid and to gain entry into a country with perceptions of positive intentions. Enabling these efforts, Ingram & Sanchez (2013) indicate that many Western governments have been shifting to partner their international development efforts with the private

sector instead of simply giving foreign aid to client countries. Countries like the USA, Denmark and the Netherlands have been functioning this way for 10 years now. While the development community sees, for the most part, that the private sector has a role to play, there are concerns about ensuring the needs of the poor are being addressed, and not simply satisfying the organization and donor country's economic needs. Without the appropriate controls in place, this shift in focusing development efforts on private sector partnerships risks becoming another form of exploitation by creating continued dependency that benefits the donors and their agenda at the expense of the recipient's plans and needs (Ingram and Sanchez, 2013).

2.1 Innovation & Collaboration

A big shift underway is in the use of technology and innovation to help solve social problems, where the term 'social innovation' is now commonplace. In April 2014, USAID launched their Global Development Lab to develop, test and scale innovative solutions to complex problems. Their aim is to use science, technology and innovation to eradicate poverty by 2030 (USAID, 2014).

UNICEF has had a big focus on innovation and building out innovation labs in various countries with great success, leading to increased funding and growth in their strategy. Their use of labs and partnerships diversifies the viewpoints by

involving different sectors and creates spaces where ideas and technology can be explored and prototyped to solve social and health problems in new ways. Examples involve how open-source technologies have been developed to provide antenatal care to thousands of women across Rwanda and to create realtime tracking of the distribution of over 25 million insecticide treated mosquito nets in Nigeria (<http://unicefstories.org/about/>).

Many UN agencies have seen this success and are following with their own innovation plans, as well as considering overlap across the UN system and working together to clarify accountabilities and collaborate together as one entity in the eyes of the governments they are working to support. They have named this initiative “Delivering as One” (UNDG, n.d.). With less funding available and a critical eye on the results, the UN agencies have been working to remain relevant through both innovation efforts and the shift to coordinate their activities so that governments only need to work with one UN entity.

We also see innovation consultancy experts such as IDEO, Nesta and Frog Design entering the space and supporting development projects with the use of human centered design processes to help solve problems. Toolkits have been created by all three mentioned, specifically for innovation in the field and for social challenges. The Rockefeller Foundation, IDE, Engineers Without Borders, Bill & Melinda Gates Foundation, UNICEF and the World Bank are all varying examples of entities that have worked with innovation experts and are incorporating

human-centered design into their problem-solving practices. This approach has a similar view to Robert Chambers' participatory approach as it places more focus on understanding the needs of people in poverty and using that empathic knowledge to ensure the right problems are being solved. As human-centered design stems from the process used by designers, it also leads to better product development through rapid prototyping and consideration of the user experience, as it will consider the context of the people it is being created for. It is perhaps not a new concept for the development community, but it definitely adds to their toolkit of human-centered methods and brings a more creative and visual approach to the problem-solving process, where solutions can range from new physical products to a mobile app that captures information in ways that were not possible before.

As science and technology continue to evolve, more decentralized collaboration and partnerships become commonplace, and human-centered problem-solving approaches are adopted, there is great potential for sustainable progress in development efforts.

2.2 Entrepreneurship

The current surge of young people in today's world exists almost entirely in the developing world. Out of a total human population of 6.5 billion, 1.5 billion are youth (here defined as people ages 12-24) and 86% of them – 1.3 billion – live in

the developing world (Sommers, 2011). Today, unemployment rates are high for youth in both developed and developing countries. Unless the economy grows in developing countries, job opportunities will continue to be deficient, leading to a delay in achieving adulthood, particularly young men, where the socially prescribed expectation for manhood is to build your own home and get married. This creates a sense of frustration in the institutions that are meant to support them and heightens their perceptions of inequalities, emasculating men by hindering their sense of purpose.

In June 2013, the UN General Assembly held a High-Level Thematic Debate on promoting Entrepreneurship as a tool for development. “Entrepreneurship is about innovating, breaking down barriers, taking risks and showing that new business models can tackle longstanding problems” (Ki-Moon, 2013). They discussed five actions that they could take together as an international community (Ki-Moon, 2013):

- Foster an enabling environment for youth entrepreneurship;
- Build the capacities of local institutions;
- Provide career counselling;
- Facilitate access to finance and youth-friendly financial services; and
- Coach young entrepreneurs beyond the start-up phase so they can maintain success.

A year later, in June 2014, Michael Dell was announced as the UN Foundation's Global Advocate for Entrepreneurship. In this role, he will focus on creating entrepreneurial cultures in countries that are not yet flourishing but who have great potential. He will aim to stimulate innovation and entrepreneurship through more access to capital, markets, talent, and technology (Dorsey, 2014).

Entrepreneurship is definitely not a new concept for international development. For example, UNICEF Innovation has used their open-source technology to mentor and support over 1000 youth entrepreneurship projects through their Kosovo Innovation Lab. As well, Kiva was the first micro-lending platform in 2005 to leverage technology for crowdsourced loans to small entrepreneurs to help alleviate poverty. And since 1980, Ashoka has the largest network of social entrepreneurs worldwide and provides start-up financing, professional support services, and connections to a global network that spans across both business and social sectors. They offer a platform for people dedicated to changing the world (Dorsey, 2014). The Grameen Bank, the Nobel Peace Prize-winning microfinance organization and community development bank, has also supported people's ability to enter into small-scale entrepreneurship through micro-credit loans since 1976 (UNESCO, 2001).

Multinational organizations have also been involved in supporting local entrepreneurs within the developing countries where they have business

operations. In the case of Unilever, it is tapping into new innovations with local entrepreneurs:

“South African social entrepreneur Sarah Collins, inventor and founder of Wonderbag and the CEO of Unilever, Paul Polman, just might be the impetus towards building sustainable business models that start a revolution in slow cooking, lifts rural women in emerging markets out of poverty and provides profits to Unilever’s shareholders” (Rogers, 2013).

Unilever used their network, their scale and their capacity development strengths to increase the reach of the product and develop the potential of a local entrepreneur in South Africa. They gain some benefits in having a stake in new relevant innovations for the 2.5 billion people in emerging and poor markets that would likely not be envisioned in the corporate environment (Rogers, 2013). It becomes an innovation pipeline for the corporate entity and a new source of profit and business model.

With the UN bringing entrepreneurship to the forefront of international development efforts, it will increase the resources available to support and nurture it, as well as create pressure at the national level to ensure policies are in place that enable seed funding and small business growth. Currently, policies and initiatives that create opportunities for seed funding and support for growth are often lacking in many developing countries.

The new concerted effort on innovation, collaboration and entrepreneurship are important improvements to traditional approaches of development and have the opportunity to increase the speed of progress on alleviating poverty across the globe. These initiatives are all in the higher structures where large organizational entities and governments are still the decision-makers for change. It also still involves outsiders coming in to solve problems for others in a top-down method.

What is also required is increased empowerment of the people who need and want to make changes to improve their lives from the bottom-up. Who best know their problems and can come up with impactful solutions but the ones experiencing and living in it. *How do we elevate the problem solving abilities of people and their community to spark innovation and entrepreneurship at the grass-roots level? How might we give even more of the power back to those who need it most in order to create greater transformation and impact?*

3.0 The Maker Movement: A Bottom-Up Connector

An example of a growing socio-cultural context that brings democratization and empowerment to people in both developed and developing countries is the maker movement. It involves a Do-It-Yourself (DIY) philosophy that is connected to access as opposed to ownership, to bringing your strengths and sharing them to create value, and to principles of openness, making, prototyping, failing frequently and peer-led learning.

A definition from Wikipedia (“Maker culture”, 2014) offers a comprehensive description:

“The maker culture is a contemporary culture or subculture representing a technology-based extension of DIY culture. Typical interests enjoyed by the maker culture include engineering-oriented pursuits such as electronics, robotics, 3-D printing, and the use of CNC tools, as well as more traditional activities such as metalworking, woodworking, and traditional arts and crafts. The subculture stresses new and unique applications of technologies, and encourages invention and prototyping. There is a strong focus on using and learning practical skills and applying them creatively” (para. 1).

These maker principles are inclusive of the open source movement, which includes software, hardware and wearables technology. The movement has been growing across the globe in the past decade with an increase in shared maker and hacker spaces, Fab Labs and the accessibility of new tools such as 3D printers, laser cutters, Arduino microcontrollers and Intel’s Quark chips. While these spaces for learning and experimentation are primarily filled with hobbyists in developed countries rebelling against a consumer-centric life, it is inspiring seeds of innovation and entrepreneurship (Morozov, 2014). “Many people talk about how small business, startups, entrepreneurs are the true economy, or at least, the forces that will move the US and World economies back from the brink” (McCue, 2011). This idea aligns to where the UN is focusing their development efforts and demonstrates that this is a focus that is believed will help the economy for both developed and developing countries.

Maker Faire is an event that first took place in 2006, allowing makers to come together and share their work and learn from each other. “In city after city, year after year, tens of thousands of people pay money to show up and learn about taking control of their media, learning, consumption and communications” (Dash, 2010). These events are now taking place around the world and its presence has been gaining strength in Africa with Maker Faire Africa’s fourth event taking place in Johannesburg in 2014. Perhaps “development” can be added to the list of what Dash has stated people are taking back control. The maker movement is gaining ground and through this momentum, its ecosystem has been growing, as has its relevance and ability to contribute to innovation and entrepreneurship.

Social networks are a large contributor to the growth of the small entrepreneur, with crowdsourcing sites offering funding opportunities (Indiegogo, Kickstarter, Kiva) for small-scale projects and online market places available to sell or rent your product (Esty, Air Bn’B, Lyft). Esty now has over one million artisan sellers on their site and made just over a billion dollars in revenue last year indicating there is desire for these handmade products (Morin, 2013). “In a world of mass-produced products, modern technology has made it easier than ever for a single individual to create and distribute items that are customizable and unique without having middlemen like manufacturers” (Morin, 2013).

With greater access to tools due to decreasing costs and shared makerspaces; the ease of access to funders and buyers through social networks; and the growing want for hands-on authentic experiences and eco-mindsets of reduce, reuse, remake; we are entering an era where making is appealing and can lead a multitude of empowered micro-entrepreneurs (Luthra, 2013).

3.1 The Maker Movement and Africa

Why is the maker movement important in the context of development?

Everyone organically contributes their skills, learns from one another and experiments to create things and solve problems. Open source's premise is that people can build upon what others have done, do something different with it to meet their needs, improve it and not have to start from scratch again. It leads to a democratized, shared progress at a quicker and more efficient rate than if everything was kept under secrecy (Hersman, 2013) or centralized from an institution.

In 2009, a group of social entrepreneurs and designers began to explore grassroots invention in an African context, putting together makers from various countries and asking: "What happens when you put the drivers of ingenious concepts from Mali with those from Ghana and Kenya, and add resources to the mix?" (Mancuso & Niessen, 2010). It was then that Maker Faire Africa was born. One reason for its importance, as stated by Erik Hersman (2013), is that it is "about a culture we already have of making things in Africa, specifically that we

need to acknowledge our already present maker culture and then try to move it in the direction where it melds some of the more recent high-tech advances with the already low-tech inventiveness found locally.”

The Maker Faire Africa Manifesto (see Figure 1) speaks a very different language from the story that has traditionally been depicted of Africa by international development. Instead, this manifesto speaks to the strength of Africans and their ability to develop themselves, together as a community, while incorporating their culture of sustainability and inventiveness. It also speaks to their need to prove it, inferring that their capabilities are unknown to the rest of the world, including even themselves as Africans. In fact many of the statements speak to hope and creating a better future for themselves, together as a community. While the original maker manifesto speaks more to aspects of self-actualization as a human, Africa’s maker manifesto is about a mindset shift to develop and share their talents as a community with the purpose of reinventing the continent as their own.

IF YOU WANT SOMETHING YOU'VE NEVER HAD, THEN
YOU'VE GOT TO DO SOMETHING YOU'VE NEVER DONE.

THIS IS THE MAKER MANIFESTO

1. WE WILL WAIT FOR NO ONE. 2. WE WILL MAKE THE THINGS AFRICA NEEDS.
3. WE WILL SEE CHALLENGES AS OPPORTUNITIES TO INVENT, AND INVENTION
AS A MEANS TO PROVING AFRICAN INGENUITY. 4. WE WILL BE OBSESSED WITH
IMPROVING THINGS, WHETHER JUST A LITTLE OR A LOT. 5. WE WILL SHOW
THE WORLD HOW SEXY AFRICAN MANUFACTURING CAN BE. 6. WE WILL
HUNT DOWN NEW SKILLS, UNMASK LOCALLY MADE MATERIALS, KEEP
OUR WORK SUSTAINABLE AND BE KIND TO THE ENVIRONMENTS IN WHICH
WE MAKE. 7. WE WILL SHARE WHAT WE MAKE, AND HELP EACH OTHER
MAKE WHAT WE SHARE. 8. WE WILL BE RESPONSIBLE FOR ACTING ON OUR
OWN IDEAS. 9. WE WILL FORGE COLLABORATIONS ACROSS OUR CONTINENT.
10. WE WILL REMAKE AFRICA WITH OUR OWN HANDS.



Figure 1. Maker Faire Africa Manifesto (<http://makerfaireafrica.com/maker-manifesto/>).

Found in Appendix A.

In South Africa, "we sit with raw materials, but we export it," says Prof Clarke.

"We don't manufacture, we don't design, everything is imported. We're

targeting ourselves to say, 'Look, let's take and design and build and create and

manufacture so that most of the wealth stays in the country'" (Mbele, 2013). In

addition to the need for government to shift policies that support less exporting of goods, it also requires building an effective ecosystem based on the needs of a developing market to help stimulate a technology, design and problem-solving culture with entrepreneurship and economic growth as outcomes.

In the context of countries or communities that have fewer resources, the maker movement and its collaborative ecosystem allows people who own things to create value by giving access to others, it fuels and supports entrepreneurship at the grassroots level and builds upon the sense of community and sharing for the greater good versus an individualistic view of success. It decreases power from the institutions by democratizing production, funding and access to goods, while encouraging the empowerment that comes through creativity and making to solve one's own problems.

There is opportunity in what Chris Anderson has referred to as the "third industrial revolution" where web revolution meets manufacturing with democratizing potential (Aljazeera, 2012). With entrepreneurship being the most common option to make a living for Africans due to high unemployment rates, and being a current high profile focus for the United Nations, there is opportunity to nurture the maker movement to increase capabilities in alignment with what is aimed to become a stronger start-up ecosystem.

Nurturing the maker movement can have other social benefits beyond simply creating a pipeline of entrepreneurs. A social innovator, such as Marvin Hall,

founder of Hall of Learning, took from the maker movement concept and teaches kids from marginalized communities how to build robotics, giving them a sense of creation and mastery of their own destiny. This is aimed to get kids off the streets and reduce violence in key neighbourhoods in Kingston, Jamaica (Aljazeera, 2012). Even just the aspect of making and creating helps to instill a change in behaviour in youth. Imagine if there was an intentional and targeted focus on enabling a network of makerspaces and connecting it to an entrepreneurship ecosystem. Is it enough to create these collaborative spaces and an entrepreneurship ecosystem for change to happen or is something more needed in the context of development?

A grassroots organization is currently using peer-led approaches that teach technology and entrepreneurship to youth and the community in a way that is transformative. The next section will focus on a case study of a social enterprise, Reconstructed Living Labs (RLabs) located in the Cape Flats suburb outside of Cape Town, South Africa.

RESEARCH AND DATA COLLECTION

The researcher spent three months volunteering at the Rlabs' head office, as well as living with a family within the Cape Flats neighbourhood. The researcher gathered qualitative data through observation and the experience of living within the community, museums, and through one-on-one unstructured

interviews with 14 staff/volunteers at RLabs. From this data, a systems map was created to reflect the societal challenges for the Cape Flats and validated with many members of the community. Through discussion with the Founder and Directors of RLabs, the organization's ecosystem was created in a map form. In order to better understand how RLabs achieves impact within the community, the more intangible theme of hope, their ultimate focus, was explored through the one-on-one unstructured interviews and general observations of the researcher. Interviews were transcribed and themes identified that reflected the important components of what allowed RLabs to successfully create and share hope.

4.0 A Case Study – Rlabs in Cape Town, South Africa

4.1 The South African and Western Cape context

South Africa has been identified as part of the five emerging national economies, known as the BRICS, which also includes Brazil, Russia, India and China. The country is seen as successful in having overcome a violent past of colonization and slavery, followed by an apartheid regime that was abolished in 1994 upon Nelson Mandela's election to presidency. As of 2013, they were still not achieving the GDP growth of 7% that is needed to sustain poverty reduction, their growth being at 2.1% (UNICEF, 2014). Poverty and inequality are still at very high levels and continue to reflect racial dimensions, despite being 20 years since

the end of the apartheid regime and significant investments made in the social and economic development sectors. They are ranked 17th in the 2013 Gender Gap Index, above developed countries such as Canada, UK and USA (Hausmann et al. 2013), a reflection of some of Nelson Mandela's efforts to improve women's representation in parliament. Yet factors such as violence against women and higher unemployment rates remain issues within much of South Africa. The government has not created an economic structure that fuels economic growth and jobs. According to the national census of 2011, approximately 25.5% of the population is unemployed, with the rate at 27.5% for women and 52.9% for youth aged 15-24. Completion of high school is at 49% and 1.6% for university.

In the Post 2015 Global Pulse data that mines online information to identify themes from tweets, South Africa has tweeted about Better Job Opportunities 19% of the time, higher than any other topic (UN Global Pulse, 2013). With the current youth bulge, high unemployment rates and lack of higher education, male youth are denied the opportunity to pass through adulthood leading to frustration and an outcome of abuse and violence towards women, where consequences are not consistently applied:

“Young men,” she said, “who feel emasculated in a country [South Africa] where they can't work, where they can't feel like they are validated by some type of economic activity, become susceptible to situation where a

woman becomes a punching bag for them to take out their frustrations on” (Burke & Calzonetti, 2013).

In the region of Western Cape, 48% of the under 25 youth are unemployed. The Western Cape also has high levels of school dropouts between the ages of 12-15 compared to the rest of South Africa, with the “coloured” community having the highest levels of school dropouts before the age of 17. They perform well but struggle with socio-economic issues, which impact their sense of what the future may or may not hold (Western Cape Government, 2013). With no sense of future opportunity, they are led to very short-term decision-making to create a better present.

Gangsterism is endemic in Western Cape and is particularly prevalent in a suburb outside of Cape Town that was assigned to the “coloured” community during the apartheid era, the Cape Flats. There, adults control the gangs and the youth are used to carry out activities on behalf of the gang. This offers them an identity, protection and economic support. It gives them structure and rituals in a context of dysfunctional families (Western Cape Government, 2013). It also leads to violence, drug addiction, prison and often death.

Besides gangsterism, entrepreneurship is the other common and often only option people have to create their livelihood. With high unemployment rates and the lack of educational skills to match up to the demand for high skilled jobs, people extract and market whatever value they can to support themselves.

Unfortunately for entrepreneurs, the government makes it difficult to obtain funding in order to grow a business, as they make the criteria bureaucratic and difficult to meet, as well as making it difficult for venture capitalists to enter due to taxation that hinders more than enables investment.

Figure 2 summarizes the systemic issue that we see in the Western Cape. There are many strategies in place through the government and social development, but they have been perplexed by outcomes that have been achieved by a social enterprise located in the Cape Flats, Reconstructed Living Labs (RLabs), as they focus on empowering the community through innovation, skills development, opportunity, and most importantly, hope.

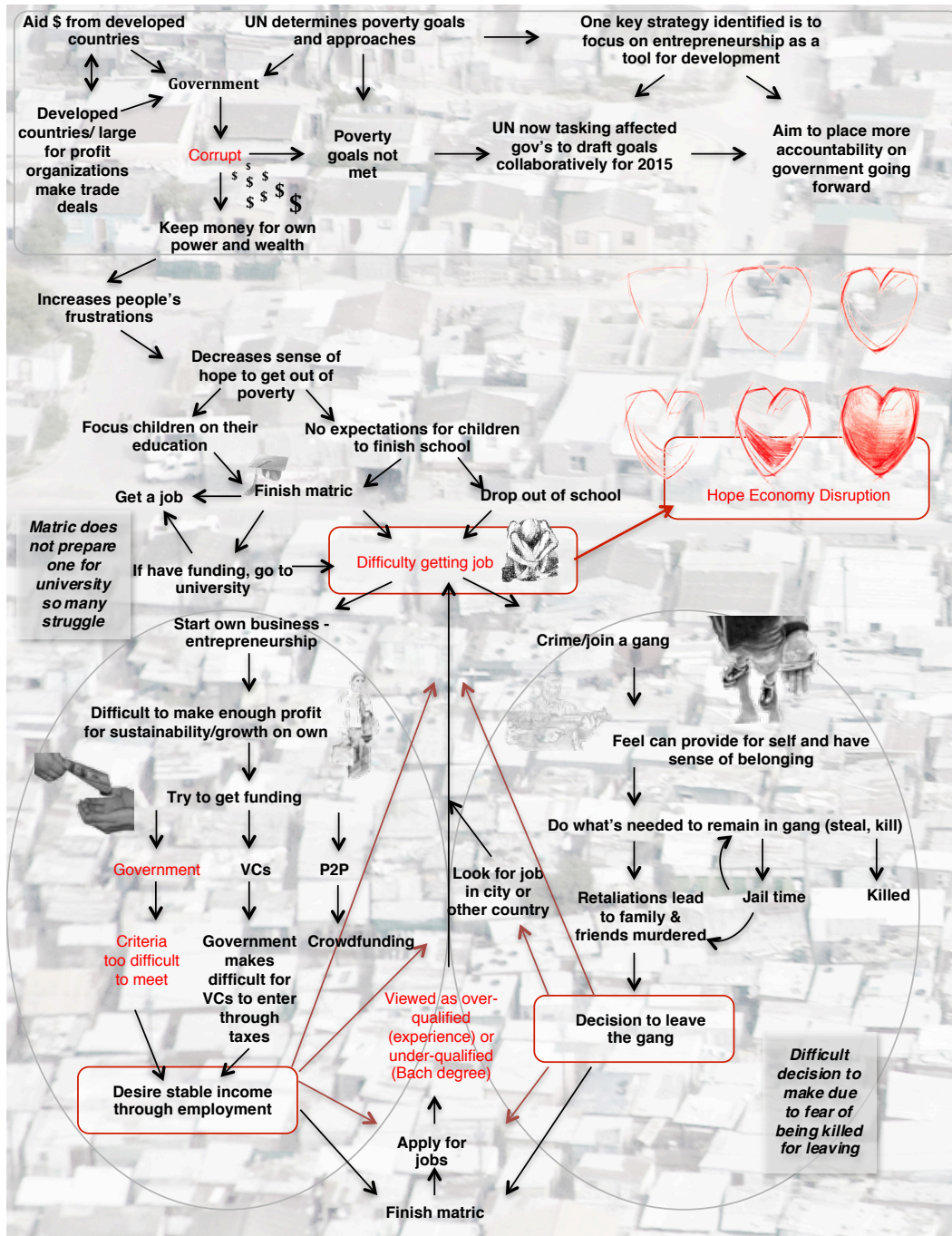


Figure 2. Western Cape System Map of Unemployment. See Appendix B for full image.

4.2 Reconstructed Living Labs (RLabs)

The social innovation lab in Cape Town, Reconstructed Living Labs (RLabs), has taken the approach of providing learning, doing and making opportunities through the use of technology for the community, with a particular focus on youth. It is an opportunity to instill a sense of purpose and mastery of one's own destiny, starting at the community level, leading to empowerment for both men and women. They are poised to disrupt the cycle of unemployment and violence by shifting the mindset of youth towards the creation and sharing of hope for their collective future.

RLabs was founded in 2008 by Marlon Parker as a social enterprise based in Athlone, Cape Town. The vision for RLabs is: To impact, empower and reconstruct local and global communities through innovation (RLabs, 2013). His ultimate vision is to reach and empower 2 billion in a lifetime (Parker, 2014).

Parker was connected with the Impact Direct Ministries (IDM), a faith-based community organization that offered substance abuse counseling to youth and adults in the community, many of whom have been involved in gangs. Parker states:

“My younger brother got involved in gangs and drugs and that is what fuelled me to do what I do. I didn't want another family to go what we went through – having people violently coming to your door. That's what started me trying to do something for people in gangs and using drugs. Of course it has evolved beyond that now. The big motivation was I couldn't

see another young person go through what I went through. For me that would just be heart-breaking,” (De Waal, 2012).

Having obtained an education in technology, he saw the opportunity to teach some basic technology skills to help empower those going through the healing process. This experience led to the idea to leverage their substance abuse counseling work via a mobile platform that focused on feature phones. JamiiX was launched in 2008 and in 2010, the technology company Mxit, partnered with the social exchange platform and strengthened its social outreach (RLabs, 2013). In 2011 it was recognized as one of the top 5 mobile innovations from Africa (Africa Investor, 2012) and continues to offer mobile counseling to drug addicts and youth across the continent of Africa. Since then, RLabs has continued to focus on the use of technology to solve community problems in the form of social entrepreneurship and have expanded their approaches to reaching the community. (see Figure 4 for RLabs core activities).

Currently, RLabs has functions as an academy for learning and growth, an incubator of new businesses, a technology hub, a research partner to academia, private and public sector, and a consultant to governments interested in their approach as they expand their presence to 21 countries. They continue to be closely connected to Impact Direct Ministries, where Pastor Roger Peterson is the Chief Community Advisor for RLabs. The values of RLabs are an extension of

this faith-based organization, where spirituality plays an important role in both its strategy and operations.

RLabs has two distinct academies, the RLabs Academy and the GROW Leadership program. The RLabs Academy offers various courses in entrepreneurship, digital media and technology. Classes are free and offered to community members through a scholarship application process. The Academy has expanded to include classes specifically for mom's with the start of Geeky Moms and Mom 2.0 (currently at Mom 7.0), a class aimed for kids, Digi kids and a partnership with Girl Rising. Community members who have taken classes have used their new skills to start their own businesses or get employment in an organization. Many return back to take additional classes and share their experiences with family and friends, which increases interest within the community.

The GROW Leadership Academy is an extensive 18-week program focused on youth ages 18-25. In this program participants take Leadership, Entrepreneurship and Digital Media classes with the aim of obtaining an internship or start their own business. Many of the youth who go through the program, experience a profound transformation, particularly as they complete the Leadership course where they unpack negative experiences from their past and embark on their self-discovery journey aimed at a better future. Storytelling occurs where

everyone will share out their own personal story and it is common for people to reconsider their life choices as they hear and learn from others.

Once the 18 weeks are completed, RLabs puts great attention and resources on celebrating this accomplishment with a special graduation event that includes family members, the community and sponsors/partners. Many of the successful participants are then asked to stay on at RLabs and volunteer as interns by paying it forward and co-facilitating the next GROW Leadership class. It provides them with work experience, while continuing to solidify their learning by facilitating and coaching other learners. Most importantly, and a part of the expectations at RLabs, it allows them to give back to someone else in need, just as they received support and love while they went through their learning process.

From these academies, RLabs looks for promising business ideas from the entrepreneurship and idea generation classes. The students with the best ideas are offered the opportunity to go through a week-long Entrepreneurship Bootcamp to further develop it and pitch their idea. Selected students and their ideas then move into the InnovIA (Innovation Incubator and Accelerator) business incubator where they develop their ideas in a nine-month program with the hopes of launching and becoming entrepreneurs. The criteria for the businesses are to be technology-focused and solving a problem in the

community. RLabs has a team of developers that partner and work with the budding social entrepreneurs to help build the technology needed to bring their concept into production.

The technology hub at RLabs develops the technology products connected to the business ideas in the incubator and to RLabs as an operation. They create mobile websites, full-blown websites, android apps and Mxit apps. They will consult with the business idea owner to offer insights on user experience and options to integrate technology into their idea and will also take on contracts from external businesses, often for app development.

The Living Labs and Social Franchising are the remaining components of the RLabs ecosystem. Here they partner with academia, private sector, government, and not for profit on research, projects and initiatives around the globe. It is a place where research, experimentation and learning are welcomed with hackathons, unconferences, design workshops and many other events. RLabs has a close partnership with University of Cape Town, Aalto University in Finland and South Hampton University and Birmingham University from the UK. RLabs also takes on consulting engagements that often consist of developing and executing social media strategies and organizing technology conferences for private entities and the public sector. They also continue to expand through their Social Franchising efforts by scoping and assessing the right fit for an RLabs location

and partnership. They have expanded into 21 countries around the globe and continue to grow.

One such partnership of particular importance is with the local government in developing Youth Café's. The first café opened in Mitchell's Plain in January 2014. It was a space designed to be attractive to youth, where they can come to connect online, take classes similar to what is found in the RLabs curriculum and a GROW leadership program was also launched at the location. All learning activities within the café, as well as external good actions done in the community, allow them to earn the café's virtual currency named Zlatos. This Zlatos currency can then be traded in for a cappuccino, lunch or breakfast. They have also recently added the ability to use Zlatos on the public bus transit system, which will be attractive to the youth who can use it to get to job interviews. This partnership offers the first external use of the virtual currency and is in progress of being implemented.

The first Youth Café had been open only for a few months when results could already be seen. A youth that had been considered a problem within the community, suddenly began speaking to people with respect and attending classes to continue their learning. People started dressing differently and there was a core group that came every day. Parents who saw a change in their child would come down to the Youth Café to see what caused such an impact on their

lives (see Figure 3a and 3b for example). The results perplexed the government; they invest so much in social development, yet in such a short time, there are tangible changes in behavior and there was no direct counseling offered at the Youth Café. This created demand with other municipal governments and within just seven months of opening the first Youth Café, a second one was opened in July 2014 (Western Cape Government, 2014).



Figure 3a. Mother's testimonial from Facebook of Youth Café impact on daughter.

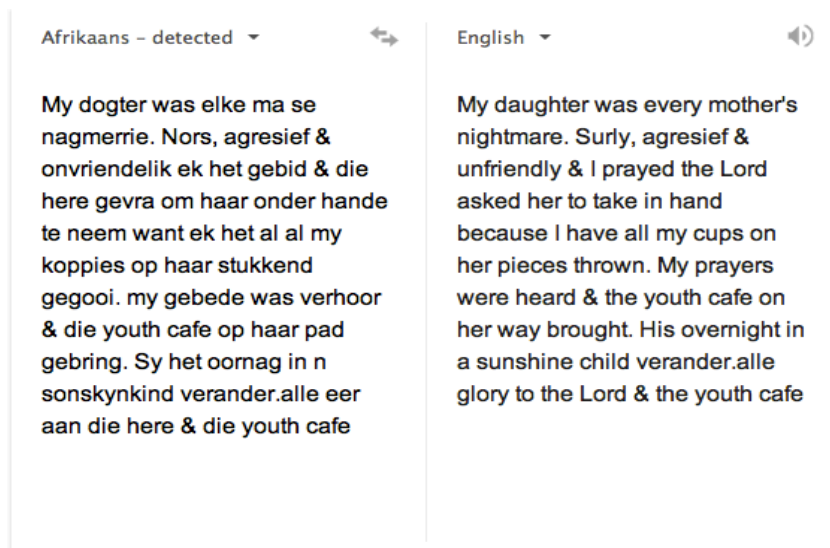


Figure 3b. Google Translate from Afrikkans to English.

The key ingredients that led to such an impact are intentionally created at RLabs. As Marlon states in his blog, “...we in the business of hope” and refers to the idea of building hope economies across all their labs (January, 2014). He further defines it as: “... the term HOPE Economy refers to an environment where HOPE is created and shared that empowers and elevates those infused with it” (Parker, January 2014). This research has attempted to truly understand what these reproducible elements of hope are with two aims: first of contributing to their scaling efforts; and second to create discussion on how RLabs’ approach empowers the community at a deeper level to allow for transformation that is needed to support development efforts in innovation and entrepreneurship.

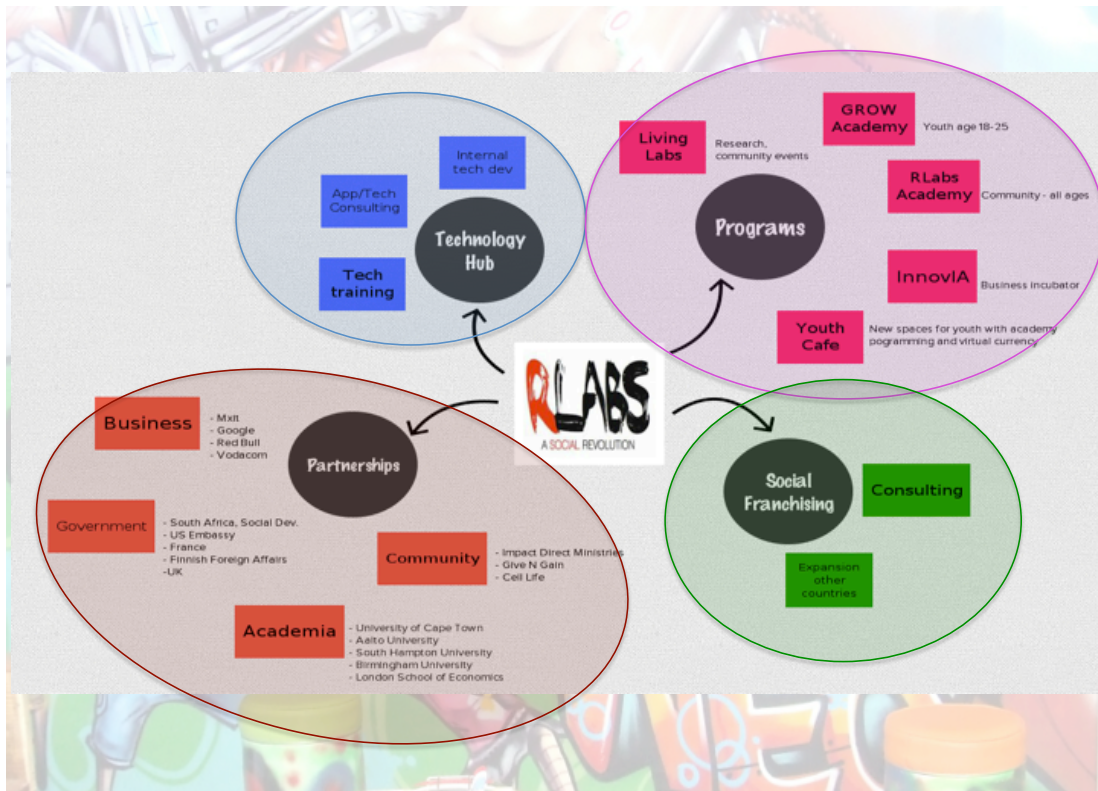


Figure 4. R Labs core activities. See Appendix C for full size.

RESULTS

5.0 Hope and How They Achieve It

One-on-one unstructured interviews were held with 14 employees, volunteers and interns at R Labs. The questions asked aimed to understand what hope in the R Labs context means, looks like, and feels like, as well as to gather stories of transformation that the interviewee had witnessed. From the interviews, patterns were identified and themes emerged. A total of 18 starting themes

were distilled further down to 8 key elements that contributed to how Rlabs creates and shares hope:



Figure 5. Rlabs' eight elements of hope.

The next section describes each element in more detail.

5.1 Eight Core Elements Rlabs Uses to Create & Share Hope

Every Wednesday at Rlabs head location, Parker holds a brief culture meeting in the morning to share thoughts and questions as they relate to the Rlabs mission, vision and culture. In these meetings and in his blog he has defined hope as “Hope is having a certainty in the present and a firm expectation in the future”

(Parker, January 2014). He also emphasized the importance that everyone reflect and define what hope means to them.

Throughout the interview process, the researcher asked this question to all the interviewees who defined hope and what it meant for them personally. Across the data, hope was defined to be that moment when a person makes a choice to change their circumstances, when they have belief that “They can do it” with belief in themselves and their future, and they can see positive possibilities for their future. This last point aligns to research that states if a person can picture a future of happiness, strength and security, then their experience in the present will be positive and hopeful (Rosewall, 2011). Snyder, who dedicated his career to studying hope, has found that emotion plays a supporting role, and that hope is essentially a way of thinking, a cognitive process (Snyder, 2002).

In Emerald’s book, *The Power of TED* (2010), he describes the Drama Triangle (see Figure 6) which centers on taking a Victim mindset (feels powerless, has experienced loss, or thwarted desire or aspiration) and involves interactions with Persecutors (perceived cause of victim’s powerlessness) and Rescuers (any person or activity that serves to relieve the victim’s “pain”) who reinforce this mindset. The individual’s focus here is on seeing problems and how to avoid them, which is often done in a reactive and unhealthy manner and does not address the issue for the person. On the other hand, in the Empowerment

Dynamic (see Figure 7), the person holds a Creator mindset (cultivates their capacity to create outcomes and chooses a response to life circumstances) and the interactions are with Challengers (a catalyst for change, learning and growing for the Creator) and Coaches (seeks to support the Creator in their process of creating outcomes by reminding them of their strengths and capabilities). Here the individual's focus is on outcomes and how to achieve a desired vision by creating baby steps and harnessing their passion.

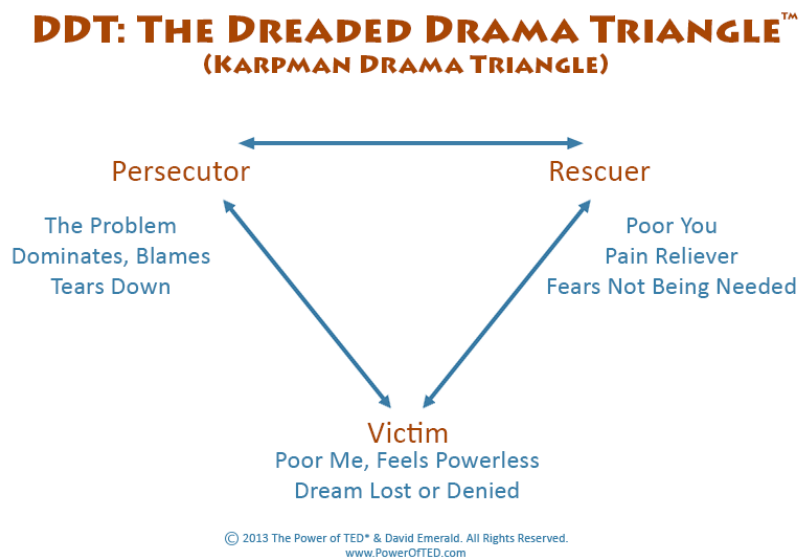


Figure 6. The Dreaded Drama Triangle (Emeralds, 2010)

TED* (*THE EMPOWERMENT DYNAMIC)™

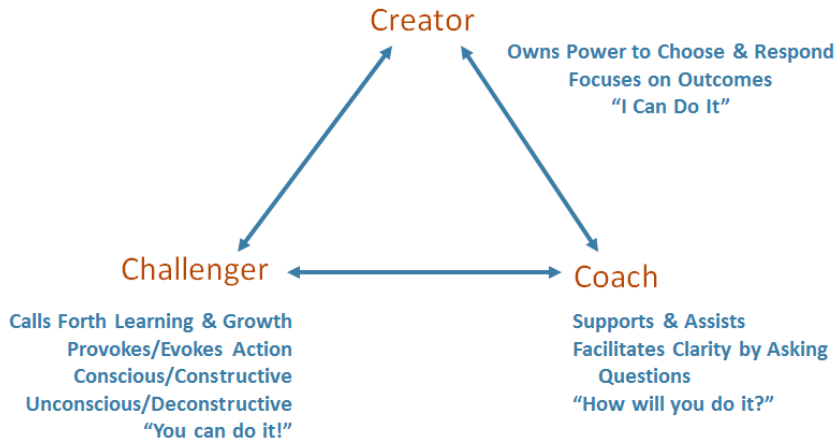


Figure 7. The Empowerment Dynamic (Emerald, 2010)

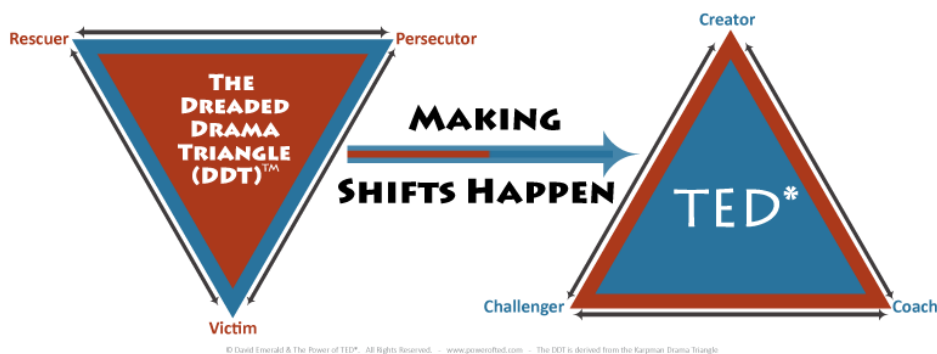


Figure 8. Shift mindset from victim to creator orientation (Emerald,2010).

Many of the key elements align to the concept of the Empowerment Dynamic and that shift in mindset from victim and problems to creator and outcomes (see Figure 8), but RLabs goes even further in enabling and reinforcing this mindset shift. Based on the data, hope is what RLabs creates when the following eight elements are present:

1. Self-Discovery Through Stories

The importance of storytelling came through with all those interviewed and was described as what RLabs was founded on. An ex-gang member or ex-drug addict, telling their story to everyone through social media or in person was said to be powerful in bringing hope and transformation.

Stories allow the listener to relate it to their life, promoting self-discovery. An important aspect that came up many times in interviews is that people do not tell others what to do. It is seen as much more effective for a person to tell their story and to let others make their own connections and create their own learnings from it. It is a powerful psychological theory called Cognitive Dissonance that causes people to feel stress or discomfort from two conflicting views and it is human nature to want internal consistency, which is what causes behavioural changes as they move to one view (Festinger and Carlsmith, 1959).

People hear a story from an RLabs employee (see Figure 9), and they may see that what that person has done in their past is worse or filled with more negative experiences, which relieves some self-shame they might be experiencing. They may also hear how someone went from their difficult past and then made a choice to change their lives and are now living in a positive way and making something of themselves. As people relate to these stories, they start to think: “wow, if that person who had that difficult life, can change their life around, then

I can do it too". This conflicts with their earlier views of themselves and begins the process of transformation. It moves them from a Victim mindset to that of a Creator mindset (Emerald, 2010).



Figure 9. An employee telling their story (provided by RLabs).

2. Spirituality

Spirituality has been an important core element at RLabs ever since it was founded out of the Impact Direct Ministries (IDM), where counselling for ex-gangsters, drug dealers, drug addicts and prostitutes was taking place. Many employees are members of the same church which is connected to IDM. RLabs draws from this community for potential new learners and also sees it as a means for the word to spread further out to the community. Spirituality helps to

guide big decisions at RLabs, which is evident by the role of the Pastor as Chief Community Advisor.

Through her research on defining “Wholehearted” living, Brene Brown defined spirituality as:

“Spirituality is recognizing and celebrating that we are all inextricably connected to each other by a power greater than all of us, and that our connection to that power and to one another is grounded in love and compassion. Practicing spirituality brings a sense of perspective, meaning and purpose in our lives” (Brene Brown, 2010, P.64).

Spirituality is commonly found within people living Wholeheartedly, which is closely connected to emotional wellbeing and the cultivation of hope. Spirituality provides security for the present and offers acceptance of uncertainty for the future, with faith in the outcome and its purpose in your life’s journey.

Rosewall (2011) defines two ways of being hopeful spiritually in a context of poverty and violence:

1. Mantener (to maintain): people who see past experiences as works of God and who put all their concerns for the future in God’s hands with the aim to achieve continuation of the status quo.
2. Sequir (continue onward): people who lift up human agency in past experiences and choose to be the hands of God in the hopes of transformation for betterment of all humanity.

RLabs speaks about God and spirituality in a way that demonstrates hopefulness as Seguir (continue onward). Their goal is to create a social revolution and they are the hands of God in the work that they do in trying to improve the lives of many through the cultivation of hope. This is the spiritual voice of hope they are reflecting to the community and to the world, which aligns with what they are trying to accomplish.

Spirituality and the teachings of God are also used in the healing process for those who are reconstructing their lives from a very difficult past. Both forms of spiritual hope, Mantener (to maintain) and Seguir (continue onwards), are found in this context and are helpful within each individual's personal spiritual journey of hope. There is no discrimination based on people's religious beliefs. There is a high Muslim population within the community and there are also people with no particular faith who have participated at RLabs. Everyone is welcome.

3. Purpose & Pathway

Finding your purpose and pathway in life is a big part of the GROW Leadership curriculum. The youth, who participate in the Leadership course, complete a River of Life exercise where they list key moments in their life from birth to present. It uncovers positive moments, but also negative and difficult ones. Students then have to share out their story, such as what was described in the *Self-Discovery Through Stories* section, which creates a process of healing and a

greater understanding of the self. They then identify their values and what's important to them in life and create specific goals to help them achieve that vision (see Figure 10). This reflects very closely to The Empowerment Dynamic described above as when people have a Creator Orientation, they focus on creating a vision for the future, use their inner passion to motivate themselves and create baby steps to get them to their desired outcomes (Emerald, 2010).

Snyder (2002) has studied hope theory and finds that people who do not have a sense of purpose or direction in life, tend to have low hope. He focused on the process of hopeful thinking where goals are what anchor hope theory, pathways give us the means to reach them and agency is our perceived capacity to use our pathway to achieve our goals (*I can do this*).

A person's sense of self, their understanding of their purpose and their direction in life, are their foundation as a human and contribute greatly to hope.

Interviewees indicated that once a person has established their foundation, they can then build upon it and change can happen quickly from there. They also indicated from experience, that once you have created your own hope, understand who you are inside, you are better able to share it and inspire others.

As a person's purpose or direction in life may change throughout the course of their life, this is an important exercise that people should revisit during important times of change.



Figure 10. Learners sharing together goals in Leadership class (provided by RLabs).

4. Do By Others....Love

The phrase “treat others as you would like to be treated” came up frequently in the interview process. Everyone at RLabs is very intentional with respect to how they treat people (see Figure 11 and 12). They want people to feel accepted, welcomed and safe from judgment. It is important to smile, be friendly, be respectful and allow people to be themselves and ultimately enable them to regain their sense of worthiness. The key is to create an environment where people can improve their sense of self-worth and then feel able to express their uniqueness. When you create this type of environment, as some interviewees said, “you unlock something within them”. When you unlock something within

that person, their true self shines through and they feel safer in being vulnerable to make the journey required for change. “When you get to a place where you understand that love and belonging, your worthiness, is a birthright and not something you have to earn, anything is possible”. (Brene Brown, 2012).

While vulnerability may seem like a weakness, it is an important human feeling that is actually an expression of courage. It allows us to own our stories, be open to who we are and to accept love from others: “And if you don’t understand shame and you don’t have some shame resilience and awareness, then you cannot be vulnerable” (Brene Brown, 2012).



Figure 11. Employees making cappuccino for learners (provided by RLabs).



Figure 12. Facilitator and participant hugging during session (provided by RLabs).

5. *A Community of Hoppers*

Brene Brown (2010) defined belonging as the “...the innate human desire to be a part of something larger than us” (p.26). Just as a gang offers a place to belong, so does RLabs, yet their goal is to displace the negative option with a positive one that does good. Because everyone at RLabs believes in their vision of creating a social revolution, a new person who interacts with or joins them, finds a community of hoppers. When you find a community of people who have changed their lives in ways you would aspire to, then that person feels a sense of kinship and hope for their own vision of change (Rosewall, 2011). With a community comes support and cheerleading, two things that were mentioned frequently by the interviewees.

If someone accomplishes something, it will be celebrated. A great example of this is the GROW Leadership program graduation (see Figure 13). It is an event that truly creates a special moment of celebration for the graduates and their families, when perhaps they didn't often have the opportunity to celebrate milestones in such a way. The employees and interns are a community of cheerleaders that are walking alongside them throughout the classes they take or program they participate in. In Emerald's (2010) concept, the graduates are the Creators and the employees and interns act as Challengers and Coaches in supporting them to achieve their goals. It gives the person a sense of belonging and helps in keeping their momentum forward during difficult times.



Figure 13. Learners celebrating end of Leadership course (provided by RLabs).

6. Building & Sharing Talents

At RLabs people are given the opportunity to express their creativity, use their talents in the process and learn new skills. At RLabs, people come to learn new skills and learn more about their talents through the process. With classes such as Idea Generation and Entrepreneurship, people are able to exercise the creativity they did not know they had through creative problem-solving activities and business modeling. In many cases, people have been inspired to start their own business and change direction in life.

When people express their creativity or make something, they are expressing a piece of who they are, which is empowering (Sanders, 2005). “Positive psychologist Lisa Aspinwall suggests that using one’s strengths creates a positive future outcome defined by improvement over or transformation of one’s present” (Rosewall, 2011 p.3). This concept of using one’s strengths has also been widely discussed within organizations, where the propensity has been to focus on fixing one’s weaknesses which is demotivating and does not optimize an individual’s talents (Buckingham & Clifton, 2001). Also widely discussed and further supporting the impact of creativity is Csikszentmihalyi’s (2004) concept of the mental state of Flow, where an activity causes an individual to feel fully focused, immersed and fulfilled in completing it. In this case there must be a

balance between perceived challenge and perceived capabilities in completing the activity (*I can do it*).

Research therefore supports that the ability to express ones creativity and develop and use ones talents is intrinsically motivating and self-fulfilling. Daniel Pink (2009) also supports this with his findings that the key determinants that drive human motivation are Autonomy, Mastery and Purpose.

RLabs inspires mastery and an opportunity for people to utilize their creativity and talents through learning new skills (see Figure 14), generating ideas for a new business or to solve a problem and contributing whatever they are good at and want to share with the community as a learner, an employee, an intern or a volunteer.



Figure 14. Learners in digital media class (provided by RLabs).

7. Paying It Forward

The need to pay it forward is an important lesson taught and is an expectation placed on everyone. It is through gratitude for what has been received and the understanding that more people should experience or receive as we have, which contributes to the vision of spreading hope. When someone takes a class and learns something, then they should find ways to teach what they have learned to their family, friends or community. Most importantly, is also to share out their experience so that more people hear of what RLabs is offering and what it can do for them.

Some students who enjoyed the class and the experience, come back to volunteer as facilitators, giving them the opportunity to spread their learning to others. This is included as a structured process within the GROW Leadership program, where after the 18-week program, some students then volunteer at RLabs and co-facilitate the GROW Leadership classes for the next cohort. They have gained so much from their experience and then have the opportunity to pay it forward to others in the hopes of impacting their lives. This approach creates a peer-led cycle of good as people successively pay it forward and inspire change within their own peers. They share their stories, learn how to coach someone through their challenges and they act as their cheerleaders and challengers as the participant journeys through their change process (see Figure

15 and 16). In considering Emerald's (2010) research as described above, they play the positive roles of the Coach and the Challenger for the Creator (participant) in The Empowerment Dynamic.



Figure 15. Intern listening and coaching new learner (provided by RLabs).



Figure 16. Interns and incubatees at RLabs (provided by RLabs).

8. *Inspiring Physical Space*

The physical space is important, as we have learned through Steve Jobs and how he intentionally designed the Pixar office, where its Chief Creative Officer stated that: “he’d never seen a building that promoted collaboration and creativity as well as this one” (99u.com). Google is also very particular in how they create a space that inspires creativity and an open, playful environment. The designers of Google offices have but one goal: “to create the happiest, most productive workplace in the world” (Dunn, 2014). Taking inspiration from innovative spaces, RLabs has been very intentional in the design of their spaces. Many interviewees mention the need to make it “different from what they are used to at home or in the community” and the idea of being worthy of “nice things” and that “inspires creativity and innovation”. What RLabs has incorporated into their design are:

- Open space for work and collaboration
- Colourful and display of art pieces
- Elements of playfulness (ie. Fake grass as the flooring throughout the space, beanbags inside a “chill room”).
- A state of the art espresso maker for delicious cappuccinos
- Modern and new furniture
- Design themes that will attract youth to a space – such as the Youth Café. One is themed on the beach with one meeting room filled with sand. The

second café is themed on the street/skateboarding with graffiti art, skateboard ramp and seating created out of garbage cans.

Overall, it's important for people to feel that the space is different from what they experience within their community. It should be a place that makes a person feel good because everyone deserves and is worthy of a nice space. It contributes to the feeling that people get when they enter and it becomes a space they want to return to and where they are inspired to collaborate and think differently (see Figures 17-21 for examples).



Figure 17. Red carpet grand opening of Vangate Youth Café (provided by RLabs).



Figure 18. Colourful, open space at Vangate Youth Café (provided by RLabs).



Figure 19. Street-inspired chill room at Vangate Youth Cafe (provided by RLabs).



Figure 20. Beach-themed meeting room at Rocklands Youth Café (provided by RLabs).



Figure 21. Skateboard ramp as décor in Vangate Youth Café (provided by RLabs).

5.2 How the Elements of Hope Interact

The above eight elements were identified and distilled as core to how RLabs creates and shares hope. Below, Figure 22 depicts the process that people go through in order to strengthen their sense of hope in a manner to reflect Marlon's reference to a Hope Economy. The eight elements all contribute as inputs to the individual's hope as they move through the process. The outputs that are generated from the process are the individual's increased self-awareness, the development of their own life purpose and goals and often their increased connection with spirituality/faith. These outputs provide strength and momentum to the individual as they complete the program/course. The outcomes from having completed the program could lead to interning at RLabs or an external organization, finding a job, going back to school or starting their own business. RLabs values the act of paying it forward, and it is one of its elements of hope. All those who learned something new, who gained one positive new step forward, are encouraged to share their experience and story out to friends, family, the community and the world through social media and/or word of mouth. This creates a reinforcing loop that further strengthens and spreads hope, as it reaches and inspires new people to then go to RLabs and also go through their change process.

This also reaches and attracts other stakeholders such as researchers, government, NGOs, business, who then take interest and come to RLabs to learn more about their process and outcomes. This brings the potential of new partnerships and adds to the strength and greater reach of hope to more people, which as it continues to grow, can take on a snowball effect and become the social movement that RLabs is striving to achieve with hope.

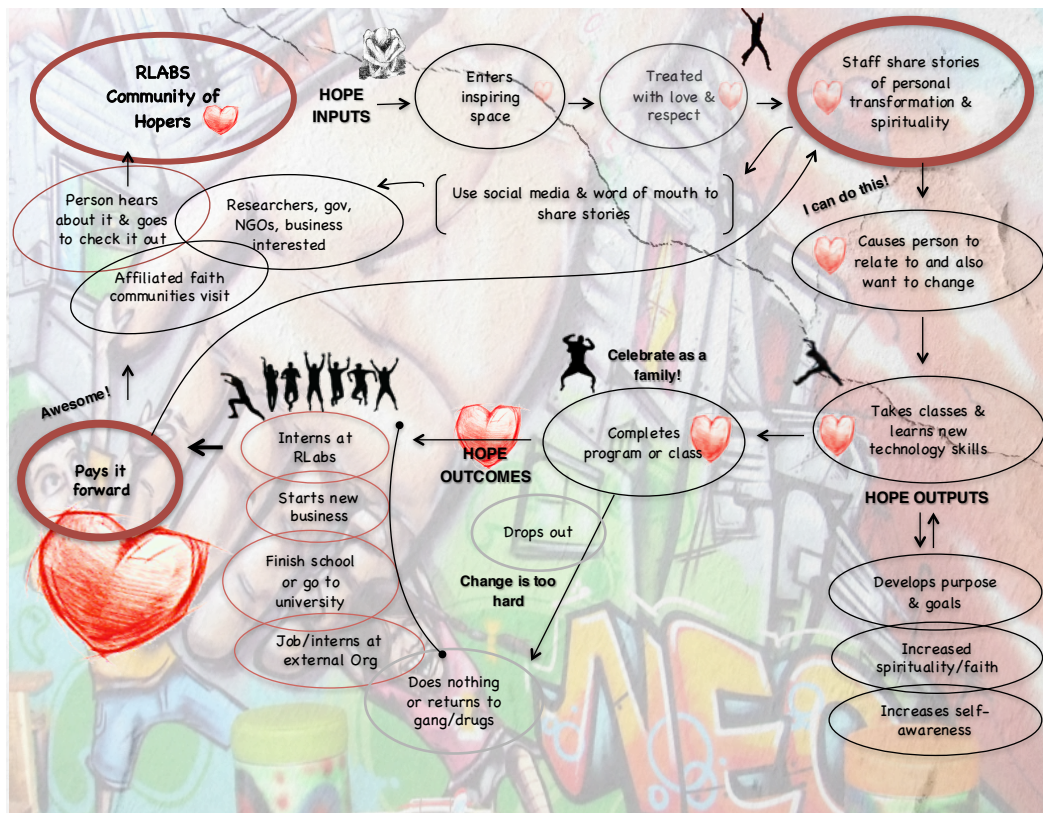


Figure 22. The hope economy disruption at RLabs. See Appendix D for full size image.

DISCUSSION

6.0 RLabs As Disrupters of the System of Unemployment

As RLabs continues to create and share hope, they are strengthening the fibers of the community that surround them. They are disrupting the systemic issue within the Western Cape, first with the creation and sharing of hope and second by strengthening the community of entrepreneurs who do good, as opposed to those who are in the business of gangs and drugs.

Upon first entering the RLabs space, the researcher tangibly felt the hope that was being created. Through the time spent in the office, living in the neighbourhood and researching hope, the researcher's hope was reflected upon and positively impacted. This offered a deeper understanding of what was being created and shared at RLabs and helped to understand the input from the participants and see it in the context of the Cape Flats.

When people have a loss of hope towards what their future holds, they are more likely to be drawn to the positive aspects of what a gang will bring: belonging, protection and a job. This can outweigh the negative activities, environment and outcomes that also align with this choice. RLabs interferes with this scenario by creating an opportunity to increase the hope of youth, where they are then more likely to choose a positive place and community with which to belong. It provides them with another way to live a good and positive life if they are committed to

going through the process of change and taking action to create new outcomes for themselves. This then leads to more productive behaviours such as getting off drugs, reconnecting with their families, finishing school, finding a job or starting a business.

The second big disruption that RLabs creates in this cycle of poverty is to weaken the gangster community and focus on strengthening the entrepreneurial community who create positive businesses. By increasing the number of people who learn entrepreneurial skills, more new business ideas are being formulated and launched, and more people are being connected into the entrepreneurial ecosystem, leading to increased seeding opportunities and greater potential for new job opportunities.

Of particular impact in spreading hope and highlighted in the visual of the Hope Economy in Figure 22, are the combination of paying it forward and sharing stories, using social media as a platform that they both teach to the community as a skill and use to tell their stories. Both elements work together to increase the potential for positive stories of hope being spread throughout the community and beyond. Instilling a sense of hope in people and then equipping them with relevant skills for today's world so they can lead a more self-sustaining, empowering life, helps to rewrite people's present and future stories for themselves and the community. This is important when the stories of the

past and present have emphasized negativity, violence and inferiority. Greater hope means people are more open, leading to increased chances for new opportunities to come their way. That story then gets shared, and more people are impacted, spreading hope further. “Recall that hope is inherently a way of thinking that occurs in social commerce. To not connect with others, in many ways, is not to hope” (Snyder, 2002, p.264). Hope is social and infectious with the potential to go viral, which is RLabs founder’s vision.

7.0 Scaling Hope at RLabs

RLabs has had presence in 21 countries and is currently active in 13 countries (see Appendix E for map). There have been differing experiences as their concept was introduced into various countries and cultures, some as new physical hubs and others as partnerships with existing organizations. In first setting up a location in Tanzania, the person from RLabs spent time explaining and describing the aspect of hope and how to create and share it. It never latched on and it was not until a couple of the leads come out to RLabs in Cape Town for a few weeks that it was understood. During this time, they felt, experienced and finally understood what the person had tried to convey in creating and sharing hope. They then went back to their offices in Tanzania and were able to implement successfully. There are now six physical hubs active in Tanzania.

There are other examples where the transference of hope was successful and in other cases where it was not well-understood, but they did not have the ability to fly out to Cape Town. Based on previous countries that are now inactive, all of them were partnerships as opposed to physical hubs. Perhaps the partner's own culture impeded their ability to truly grasp and implement the RLabs approach of creating and sharing hope. As RLabs continues to grow and scale, their efforts may yield limited results if they are unable to transfer the understanding and knowledge of how to implement the creation and sharing of hope. As there are many organizations that offer similar types of courses, hope is a differentiator and, based on this research, an important component of achieving success and transformation to reconstruct lives.

Eight elements of hope were identified. Are they the right ones and if so, can this help to train other locations on hope creation and sharing? Or perhaps more appropriately, it could be used as a playbook where the new location will collaboratively adapt the elements of hope to reflect their culture in how they would live the elements to create and share hope. As paper and words may not relay the feeling and experience of hope that was needed for locations such as Tanzania, videos, experiences and images could help to capture the feeling and essence of each element and bring them to life without the need to be present in the Cape Town location.

With the ability to effectively express how to create and share hope, RLabs will be in a better position to ensure their scaling efforts are appropriate to the culturally diverse locations and therefore have the programs more likely to be adopted, resulting in more sustained growth and a growing hope economy.

8.0 Makerspaces of Hope

In the example of RLabs, there is a very positive and impactful bottom-up approach that exists within the Western Cape. If the needed structures and policies were in place at the institutional level, then the combination would create the strong momentum and change that everyone is seeking.

In the RLabs model, it is the people in the community who are impacted by the systemic issues who created a solution and who involved the community to heal and then in turn helped others heal. Akin to the principles of the maker movement, they embraced the value of openness, where outsiders are welcomed and come in to contribute as a partner or to learn from their approach for research purposes or inspiration. It is a knowledge exchange versus solutions being imposed or one-way knowledge being transferred. This is a very different approach from traditional models of international development and would be a shift of the power of change away from centralized institutions to the distributed networks of people. It is instead a peer-led democratized empowerment for

change that is built around the needs of the community by the community, where institutions act as enablers and supporters.

Our world has created structures and institutions with the industrial revolution mindset because that is what the world knew at the time. They were built with hierarchies that distance the top decision-makers from the people who are being impacted or who are doing the work; and with the assumption that the top decision-makers knew the right answers and therefore must lead in a command-and-control fashion. Yet our world has evolved since that mindset was considered the new innovative way to function. In today's world, with access to information, decentralized networks of connected people and the right enabling environment, such as what RLabs has provided, there is still opportunity for approaches in international development to shift even more by including an even greater support and connection of the bottom-up approaches to the top-down initiatives. A peer-led process of hope and transformation has the potential for greater impacts in the long-term as it is focused on growing from within (inwards to outwards) as opposed to external coming in and solving the problem (outwards to inwards). The traditional role in international development has had a tendency to be one of "Rescuer", which reinforces more of a "Victim" mindset within those being helped (Emerald, 2010). Further shifting to more peer-led models and taking on more of a "Coaching" role, would enable their mindset shift to that of "Creator", which supports the language and culture

that the Maker Faire Africa manifesto is trying to ignite with people across the continent. It is also in line with one of RLabs' values: *by the people for the people* (RLabs, 2013).

With the UN deciding to place increasing focus on entrepreneurship as a tool for development, as well as on innovation and collaboration, this will hopefully lead to enabling stronger start-up ecosystems across Africa. Their role will involve consulting with governments and financial institutions to create enabling policies and structures that will nurture a start-up culture. What should also be involved is a greater focus on enabling the creation of hope and equipping models such as RLabs at the grassroots level, to effectively lead the needed change.

By expanding the concept of the RLabs model of peer-led creation of hope that nurtures entrepreneurship, social media and software development, to also leverage the maker movement, it takes on a more robust capacity development strategy. "Simply put, the more we merge the hardware and software, the more interesting our products will be and they'll have more global relevance at the same time" (Hersman, 2013). Evolving the concept to that of peer-led makerspaces of hope that include entrepreneurship, digital media, software, hardware and traditional craft, will help not just in fueling capabilities and interest in entrepreneurship but also in manufacturing and design which are currently weak within Africa (Okafor, 2013). "Well-managed makerspaces are a

missing component in the African technology ecosystem and we need more of them” (Hersman, 2013).

With the current innovations in open source hardware and its increasing convergence with software, creating opportunities in entrepreneurship will have limitations if exploration and curiosity are not developed. It is critical to move beyond software and apps development to also translate to manufacturing and design. More of these self-organized, makerspaces of hope (see Figure 23) should be available for the entire community including targeting and attracting youth and children. It’s important for them to have earlier exposure to coding and hardware, where they have access to both tools and mentors. While these spaces would be places of exploration and creativity, they differ from makerspaces in developed countries, in that, such as RLabs is today, they are also spaces of hope and healing.

These makerspaces would be at the center and leading a change strategy and should be connected to the greater start-up ecosystem – academia, venture capitalists, incubators, technology labs and guilds. These stakeholders would play the role of mentors, coaches and talent scouts within these makerspaces. The stronger the ties are with the start-up ecosystem and the more there is a clear focus on ensuring the space is 1) peer-led and upholding maker movement principles of openness and most importantly, 2) hope is being created and

shared, the more successful the transformation of the wellbeing and prosperity of the community, nation and continent. “It’s important for us to have spaces that the community has built and runs, where the university, corporates and government can plug into, but not be in charge of” (Hersman, 2013). This is similar to Sugata Mitra’s aim to challenge the institution of education and have a space where the children are in charge of their own learning; here it is the community in charge of their own development.

In creating makerspaces of hope, people will have a space of their own to connect and learn new skills. As this leads to outcomes such as we see with RLabs: internships, jobs, new businesses; it also starts to attract attention, opportunity and change. Government sees an approach that is working and wants to get involved as it allows them to look favourable to voters and the international community. This offers an opportunity to influence change with the government in ways that will support the needs of the community. The start-up ecosystem will also be attracted to potential new business ideas, innovation and talent within the community. They can offer their expertise, mentorship jobs, and seed support which will also benefit the community and create change.

Hope is what ignites the shift of mindset leading to activities that drive change. The outcomes of these changes attract attention from other stakeholders and more momentum is created, shifting what was a balanced system of

unemployment in the community, into a system being reinforced by positive activities leading to employment.

In this case, the UN would work with government to play the role of “Challenger” and “Coach” to support their desire for change. NGOs would be playing a similar role but more often supporting the community or organizations such as RLabs. By supporting the creation and sharing of hope, the change happens within the community, who then attract the attention of other internal stakeholders and influence further change from within. When change is driven from within, people then understand what they need and will seek out the support they need from external players such as the UN or NGOs. When efforts are in place for the community and nation to lead their own change, they will be in a better position to learn what is needed for them to continue to progress.

When considering the context for makerspaces of hope, this approach is more fitting in countries that have a democratically elected government, where the government may have some corruption but they ultimately want to make voters happy and where the country is not in a state of war. These other countries would still need hope and it would be particularly important, but makerspaces may not be the best channel for that hope to be shared. Using the elements of hope and identifying an appropriate channel for the context and desired

outcome would be more helpful for those countries that are highly underdeveloped or in conflict.

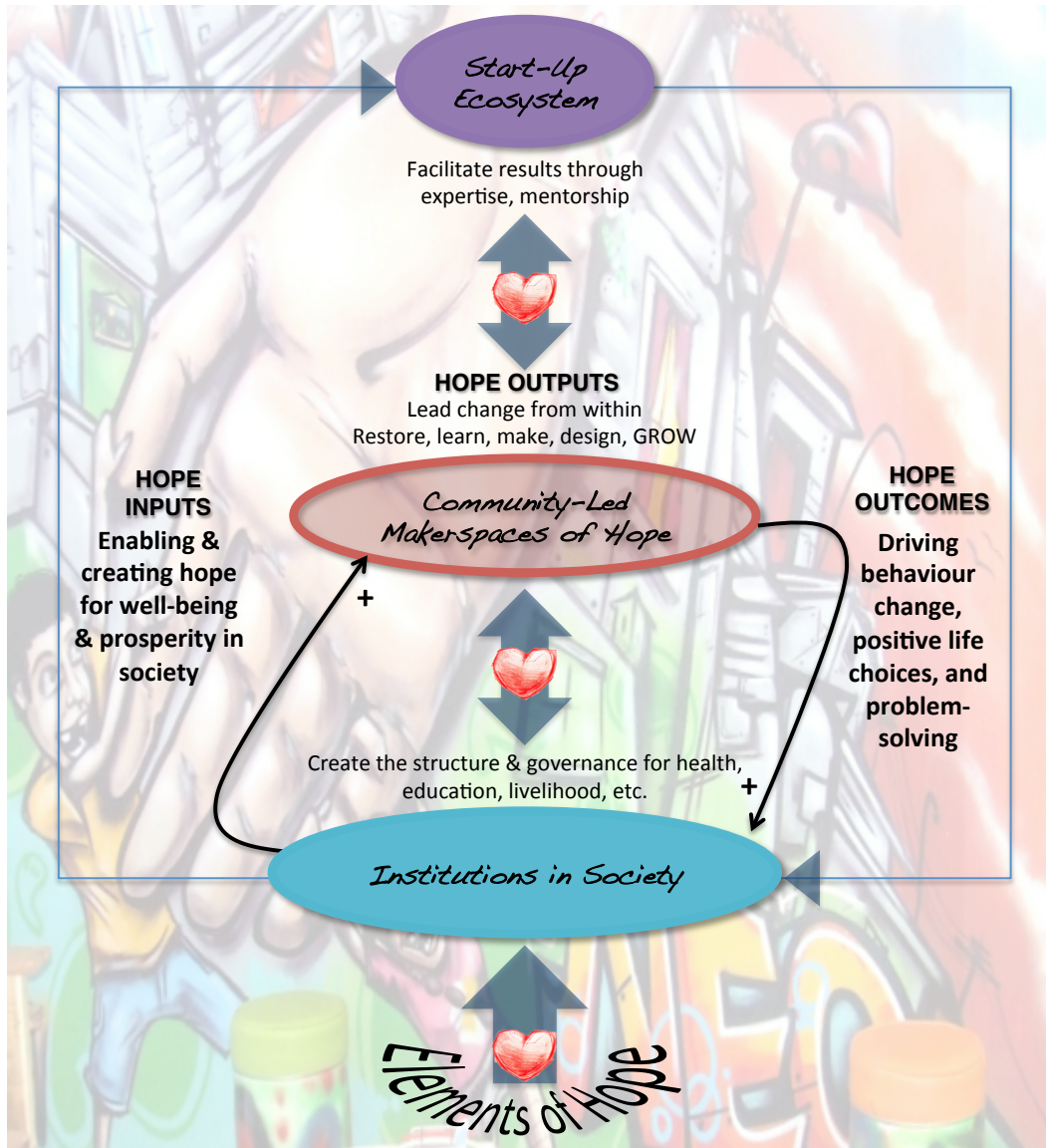


Figure 23. Makerspaces of Hope

9.0 Applications within developed countries

Hope is very human and necessary for our existence. It is what drives us to dream, to innovate, to want to solve problems and essentially to live. Hope is therefore relevant to all people across the world in varying degrees and points in time. Looking at developed countries, the institutions continue to be run with an industrial economy mindset and yet their underlying purpose is to improve the well-being of society. Institutions such as private sector organizations, education, government and health care are trying to shift to become more relevant to society today and creating and sharing hope could be an important starting point in that journey of transformation.

For example, North American youth today feel disenfranchised with and apathetic to democratic participation. Many efforts are being taken by governments to make their platforms relevant to youth and to engage with them using mediums they use to communicate. There is also dialogue on open government where transparency and citizen involvement is more participative. The government could take the elements of hope and adapt them in a way that guides how they engage with citizens and shape society to be one that creates and shares hope. Creating and sharing hope could help nurture societies that make more positive life choices for themselves and for others.

In large private sector organizations, employee engagement has been a goal that is highly desired amongst their employees. It has been part of organizational dialogue since the 1990's and has been positively correlated to greater profit and revenue as well as higher customer satisfaction. Many consulting firms and academia have determined models of employee engagement and how to effectively measure it. Figure 24 depicts Towers Watson's model of engagement, which has recently been adapted to Engage, Enable and Energize, the last one lending to a more sustainable measure of engagement as it includes the well-being of employees (Towers Watson, 2013). They also conduct global engagement studies and their 2012 results indicate that only 35% of employees around the world are highly engaged (Towers Watson, 2012). With all the measurement and action plans for improvement that organizations have placed efforts on, the continued lack of an engaged workforce indicates there is something more needed to create inspiring and motivating workplaces. Perhaps what are missing are the more human aspects that can be found in the elements of hope model. These eight elements could essentially be adapted to an organizational context. Some elements align to already existing models of employee engagement (ie. Build and Share Talents), while there are some elements that would be new and potentially create impact (ie. Pay it Forward, Self-Discovery Through Storytelling and Do By Others...Love).

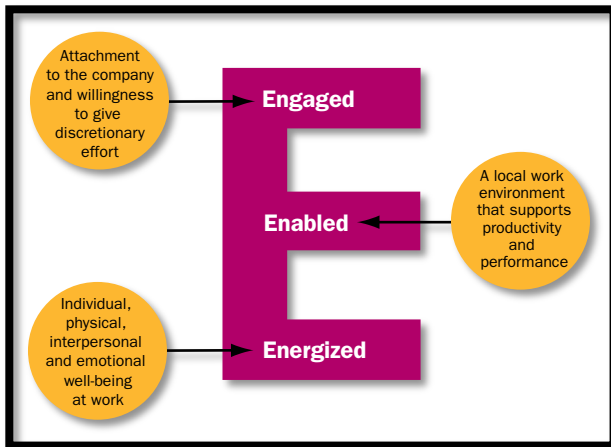


Figure 24. Towers Watson's model of sustainable employee engagement

There is opportunity in these institutions to relinquish paternalistic approaches and incorporate some peer-led or community-driven methods, while also identifying how the elements of hope could be implemented to nurture environments that create and share hope. The purpose of institutions is essentially to improve the well-being of society. As institutions look to reinvent themselves in our changing world, those that become creators of hope would have a sustaining impact on the strength and empowerment of the society they are meant to support in achieving well-being and prosperity.

10.0 Summary and recommendations for future research

RLabs is relatively new, having been founded in 2008 and having experienced exponential growth in the last couple of years with more growth in view. While there is no doubt that they are creating the hope they have set out to inspire, it

can be difficult to measure their impact. Measurement is an increasingly important question in international or social development and will be an important one for them to explore as they look at the impact from the creation of something intangible such as hope. With the Youth Cafes and the virtual currency Zlatos being so new, it is too early to have any quantitative insights. Perhaps this currency could eventually be a way to measure how hope is created and shared, such as how Parker envisions as a Hope Economy. How might that Hope Economy expand out further from the context that was depicted in Figure 22?

In having attempted to define how RLabs creates and shares hope, the next step would be to take the model of hope and test it to be used to explain and replicate hope in another location. There is current interest in RLabs Canada to utilize this model in guiding their efforts to continue to scale RLabs in the Americas. The question remains, does writing it down miss the important element of feeling and experiencing it, in order to truly understand how to recreate hope? Would including video, visuals or experiences to bring the hope elements to life help in the process of understanding and recreating it? As the researcher has directly experienced the creation of hope while spending time at RLabs, the impact felt was great enough during that time to instill a strong sense of believe in it's importance for transformation. Had the researcher interviewed participants from afar and never stepped foot in the Cape Town location, her

belief in and understanding of hope as a key driver for change would not have been supported with the sense of conviction in RLabs' approach that forms the results of this research. The researcher's capabilities in identifying the eight elements of hope would also have been limited through interviews at a distance, as the ability to experience it personally also helped inform what is important to pay attention to and the context behind the information gathered. Experiencing it is therefore important, and experimenting with ways to bring specific elements of hope to life will help others to feel and understand how to create such an important and impactful approach to change.

Expanding its use even further, could the elements of hope be adapted and used within other institutions in either developed or developing countries, to better nurture society's well-being? Testing the model within an organization to help drive culture change and increase employee engagement would be a good opportunity to examine its transferability.

Another consideration is the question of the concept of makerspaces of hope being relevant and impactful in developed countries. In the west, makerspaces tend to be more for hobbyists where participants achieve some self-fulfillment that they may not get from their day-to-day jobs. Perhaps this type of model of hope can be considered by organizations to reinvent how work happens, reduce hierarchy and help reengage employees, which is low in organizations across the

globe. It could also be applied into already existing makerspaces that are geared to children and youth in order to test what kind of impact this might bring to their well-being and growth.

While efforts within international development have been with good intention, there is opportunity to better connect the institutional strategies and goals with the more grassroots, people development initiatives in order to strengthen the overall impact and avoid ineffective money flows into countries where a small percentage is distributed to the masses and change is minimal.

In communities where a sense of identity and hope has been lost, such as we see in the Cape Flats outside of Cape Town, South Africa, it is important to consider this human aspect of creating hope in order to strengthen the sense of self and will to unleash their own potential to then envision and build their own future. This is about creating environments where people can lead their own transformation together as a community to rebuild their identity and their nation. The maker movement principles and spaces allow for this type of community interaction, peer-led learning and ingenuity, and RLabs has found a way to ignite the passion and will of people through the creation and sharing of hope. Bringing the two together has the potential to be transformative at the individual and community levels. With stories being shared amongst the community and on social media, the possibilities of impact become exponential.

There is still a role for international development in crisis management, offering expertise in key areas, enabling hope-building, influencing the creation of structures and governance and holding governments accountable. Perhaps such as Sugata Mitra has found in his study with children and education, we can create an “International Development In The Cloud”, as the actual people needing the change, work together to define it, create it and take steps towards achieving their own future vision with hopeful hearts and minds.

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APPENDICES

Appendix A - Maker Faire Africa Manifesto

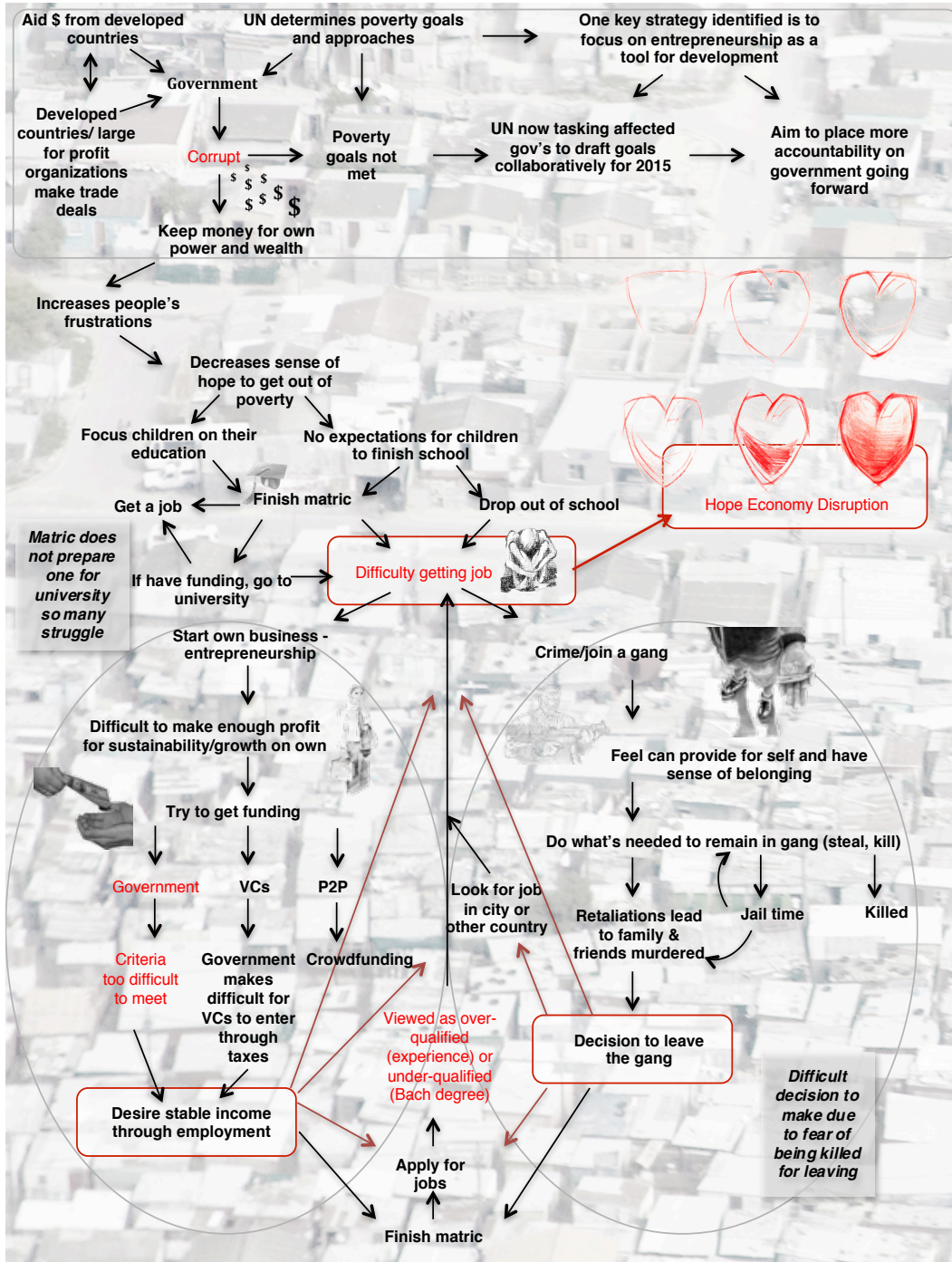
**IF YOU WANT SOMETHING YOU'VE NEVER HAD, THEN
YOU'VE GOT TO DO SOMETHING YOU'VE NEVER DONE.**

THIS IS THE MAKER MANIFESTO

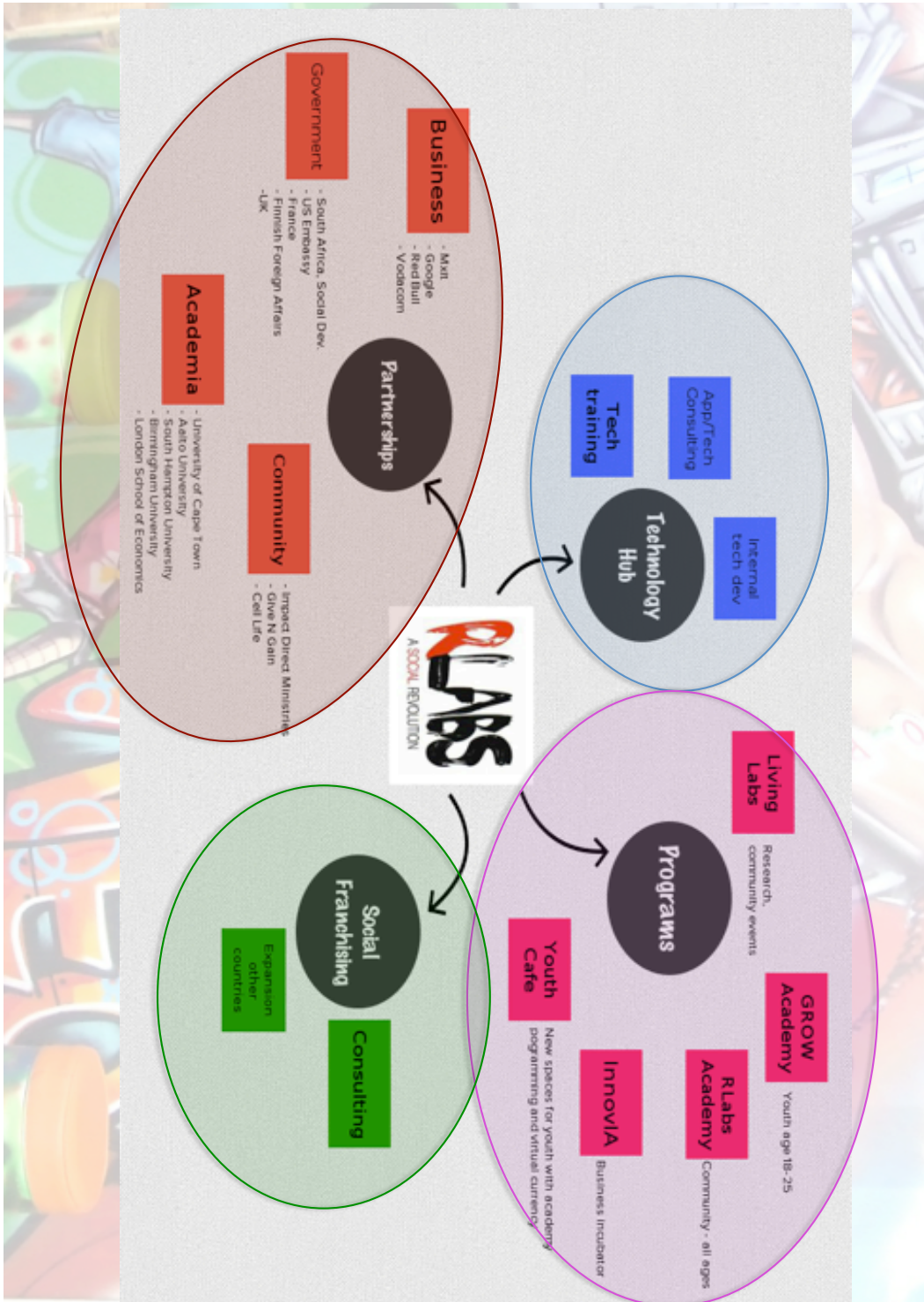
1. WE WILL WAIT FOR NO ONE. 2. WE WILL MAKE THE THINGS AFRICA NEEDS.
3. WE WILL SEE CHALLENGES AS OPPORTUNITIES TO INVENT, AND INVENTION
AS A MEANS TO PROVING AFRICAN INGENUITY. 4. WE WILL BE OBSESSED WITH
IMPROVING THINGS, WHETHER JUST A LITTLE OR A LOT. 5. WE WILL SHOW
THE WORLD HOW SEXY AFRICAN MANUFACTURING CAN BE. 6. WE WILL
HUNT DOWN NEW SKILLS, UNMASK LOCALLY MADE MATERIALS, KEEP
OUR WORK SUSTAINABLE AND BE KIND TO THE ENVIRONMENTS IN WHICH
WE MAKE. 7. WE WILL SHARE WHAT WE MAKE, AND HELP EACH OTHER
MAKE WHAT WE SHARE. 8. WE WILL BE RESPONSIBLE FOR ACTING ON OUR
OWN IDEAS. 9. WE WILL FORGE COLLABORATIONS ACROSS OUR CONTINENT.
10. WE WILL REMAKE AFRICA WITH OUR OWN HANDS.



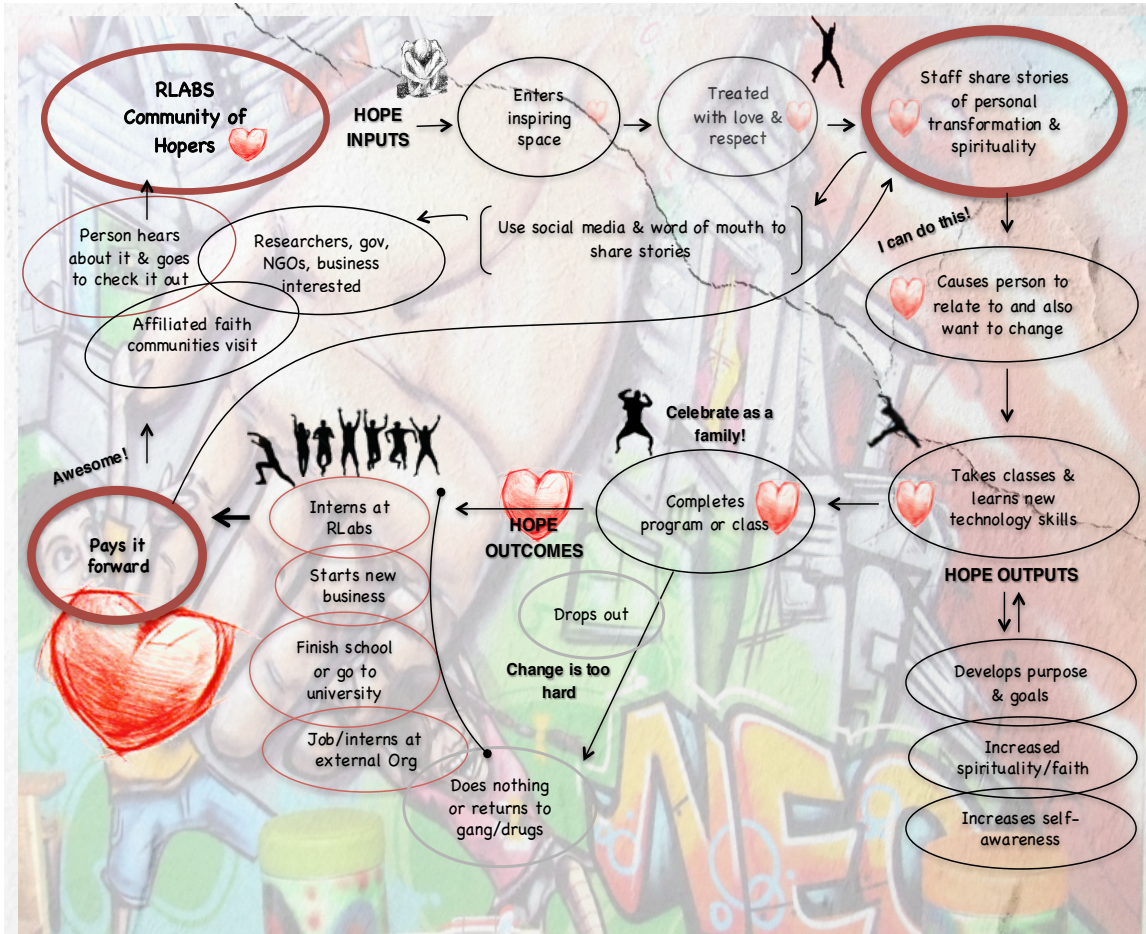
Appendix B - Western Cape System Map of Unemployment



Appendix C - R Labs Core Activities



Appendix D - The Hope Economy Disruption at RLabs



Appendix E – Rlabs Global Locations

