

rise

Financial Inclusion Hackathon
6 - 7 May 2016

Report written by Bertha Centre

Created by



6 - 7 May 2016

75 Participants

Bankers, students, social innovators, developers, researchers and community members.

Speakers

Leif Petersen

Sustainable Livelihoods Foundation

Jeremy Leach

Inclusivity Solutions

Partners

Rise, Thomson Reuters, IBM, the Bertha Centre, and CENFRI

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Introduction

“We are already well into a FinTech revolution involving branchless banking and mobile money. These models extend basic account and payment services to people who cannot be reached through traditional branches ...”¹

In May 2016, a consortium of unusual partners came together in Cape Town to host a financial inclusion hackathon in continuation of this revolution. Hosted, and led, by Rise, these included the Bertha Centre for Social Innovation, Thomson Reuters, IBM and The Centre for Financial Regulation and Inclusion (Cenfri). The hackathon methodology is ideal for multi-stakeholder, tech-enabled innovation, as it creates

a shared space for rapid ideating and prototyping. Bringing the right participants and teams together is pivotal; for the financial inclusion hackathon, these included community members, stokvel members, app developers, bankers and other financial services providers, all of whom were committed to jointly designing relevant and accessible financial designing services targeting the unbanked and underserved.

¹Technology Enables Full Financial Inclusion (Center for Financial Inclusion, 2013), 4. <https://centerforfinancialinclusionblog.files.wordpress.com/2013/10/technology1.pdf>

Process

A ‘hackathon’ is a creative problem-solving event, often based on technology. Participants are a mix of developers, creatives and industry experts, who form small groups of up to 10 people. The teams jointly develop an idea, which is tested through rapid prototyping, such as an app. The teams have seven minutes to pitch their ‘product’ to a panel of experts who select a winner. The outcome is not comprehensive problem-solving, but playful and creative ideation.

Human-centred design (HCD)

HCD means learning directly from customers in their own environments and developing and refining concepts with customers themselves. The process challenges designers to understand, create, evolve, and test possible solutions.



A short debrief

The hackathon took place on 6-7 May 2016. Financial inclusion experts introduced participants to key aspects of financial inclusion, the state of financial inclusion in Africa, and the four problem statements that would frame the 'hacking' experience.

The actual hacking took place on day two of the event – more than 70 people arrived to ideate and compete for the R20,000 cash prize.

To kick-off the ideation and coding IBM introduced the blue mix programming software to allow participants to design web applications in real time.

Thomson Reuters presented human-centred design thinking as a tool to help the teams design solutions with the end-users in mind. Both IBM and Thomson Reuters were present throughout the day as 'roving experts', alongside representatives from Rise, Cenfri, and the Bertha Centre. Before embarking on the ideation, the teams unpacked their shared understanding of key issues as well as individual insights and backgrounds. The teams arrived at their 'final' idea through different processes; team Microinsurance and Mamghobozi, for instance, sourced innovative solutions from each team member before deciding on the one that best met the strength of the group.

Team Sava, on the other hand, followed the lead of the individual most passionate about their idea and went out onto the surrounding streets, to conduct random interviews to test their ideas. It is important to note that all hackathon ideas were developed as creative commons, which allows any participant or partner to take the idea forward.

Team 6, who developed a microinsurance solution for health care in Ghana, walked away with the prize.

Judges



Marlon Parker
Rlabs



Alwyn van Wyk
Barclays Africa



Yossi Hasson
Techstars Africa



Celina Lee
Center for Financial
Regulation & Inclusion



Zimkhita Buwa
TechWomen SA



Ian Merrington
Cape Innovation and
Technology Initiative

A snapshot of financial inclusion

**“Many of our people still do not have savings accounts, do not receive credit from formal credit providers, and do not have any type of insurance and rarely make or receive payments through formal financial institutions, thereby increasing their financial vulnerability.”
– Nhlanhla Nene, 2015²**

² Nhlanhla Nene, SADC Financial Inclusion Indaba (National Treasury, 2015), 1.<http://www.gov.za/speeches/minister-nhlanhla-nene-sadc-financial-inclusion-indaba-23-jul-2015-0000>

Without access to financial services, it is difficult to perform everyday activities, and yet for a large number of people, the lack of access to financial services is a reality. From a long-term financial planning perspective, this means not having ways of saving for your child’s education. It means not being able to take out a loan to provide a home for your family. And it means not being able to insure yourself against health scares and accidents.

On a day-to-day basis, operating in a cash-based economy is inefficient, expensive and risky. Inefficient, as it forces you to stand in line for hours waiting to pay the bills or travel long distances to make a deposit at the nearest branch. Expensive, as there is no way of sending money home to your family at a reasonable cost. And risky, as carrying cash exposes you to theft.

³ Asli Demirgüç-Kunt et al., Global Findex Database 2014 - Measuring Financial Inclusion around the World (World Bank, 2015), 4.http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/10/19/090224b08315413c/2_0/Rendered/PDF/The0Global0Fin0ion0around0the0world.pdf#page=3

These are the results of financial exclusion.

Financial inclusion, on the other hand, is the access to – and use of – financial services. It ensures that not only is access provided and usage encouraged, but also that the quality of the banking products is appropriate for its target market.

According to the 2015 Global Findex³, two billion adults worldwide lack access to formal financial services. The good news is that these numbers have been improving rapidly; from 2011 to 2015, the world’s unbanked population decreased by 20%. In South Africa, the percentage of the adult population with a bank account at a financial institution grew by 15.2% in that same period.



Mobil(e)ising change

As the world is moving towards a cash-lite society, where we all carry out our financial transactions through digital means, five key developments will change financial services and business models in the coming years; these are big data, cloud computing, smartphones and tablets, social media, and identification.⁴

The technology revolution is enabling financial institutions and start-ups to overcome traditional barriers such as high transaction costs, (credit) track records, vast geographical distances and low data points. This is driving the rise of branchless banking in Africa; through mobile money, millions of Africans now have access to secure, reliable, and affordable services.

East Africa is the epicentre of mobile money, with Kenya as the epicentre. 68%⁵ of all adult Kenyans reported having used mobile money in 2013. This is largely due to the successful rollout of M-Pesa. In addition to its mobile money transfer services, M-Pesa also offers multiple mobile banking options such as savings products and group accounts – the Chama (friend) account – and a personal bank account in the form of the KCB M-Pesa bank account.

However, technology must be driven by, and tailored to customer needs. According to key industry experts, such as the Center for Financial Inclusion and Jeremy Leach (Inclusivity Solutions), who addressed the hackathon, financial services providers and technology powerhouses still need to make an increased effort to include the poor, vulnerable and systemically excluded in the product design phase.

⁴Technology Enables Full Financial Inclusion, 4.

⁵Asli Demirgüç-Kunt and Leora Klapper, "Financial Inclusion in Africa: A Snapshot" in Financial Inclusion in Africa, ed. Thouraya Triki and Issa Faye (Tunis: African Development Bank, 2013), 48.

**...millions of
Africans now
have access
to secure,
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affordable
services.**

Financial inclusion roadblocks in Africa

Although improving, the push towards financial inclusion of Africa's poor still faces a number of stumbling blocks.

Financial literacy

A limited understanding of the value of financial services currently contributes to financial exclusion. Evidence shows that investing in financial literacy increases the levels of participation of the excluded in the formal financial system. For example, the impact of the Banking on Change Partnership's financial literacy programme in Peru resulted in the proportion of women saving with banks increasing from 27% to 71%.⁶ Financial literacy is also core to consumer protection; better informed customers are more likely to detect fraudulent financial products. This means that vulnerable communities deserve the protection afforded by heightened levels of supervision by the financial authorities when it comes to the providers of financial services.

Mistrust and inappropriate products

Linked to the financial literacy issue is the need to improve the interaction between financial services providers and the financially excluded populations. The latter can find the early stages of a formal financial life daunting, thus efforts need to be made to improve upon literacy levels and tailor the banking experience to the customer. An increased level of interaction can also benefit the banks, as they stand to gain an improved understanding of the real needs of this new customer base, thereby unlocking profitable opportunities.

⁶ Barclays, Banking on Change: Breaking the Barriers to Financial Inclusion (2013), 10. <https://www.home.barclays/content/dam/barclayspublic/docs/Citizenship/banking-on-change.pdf>

Gender and age discrimination

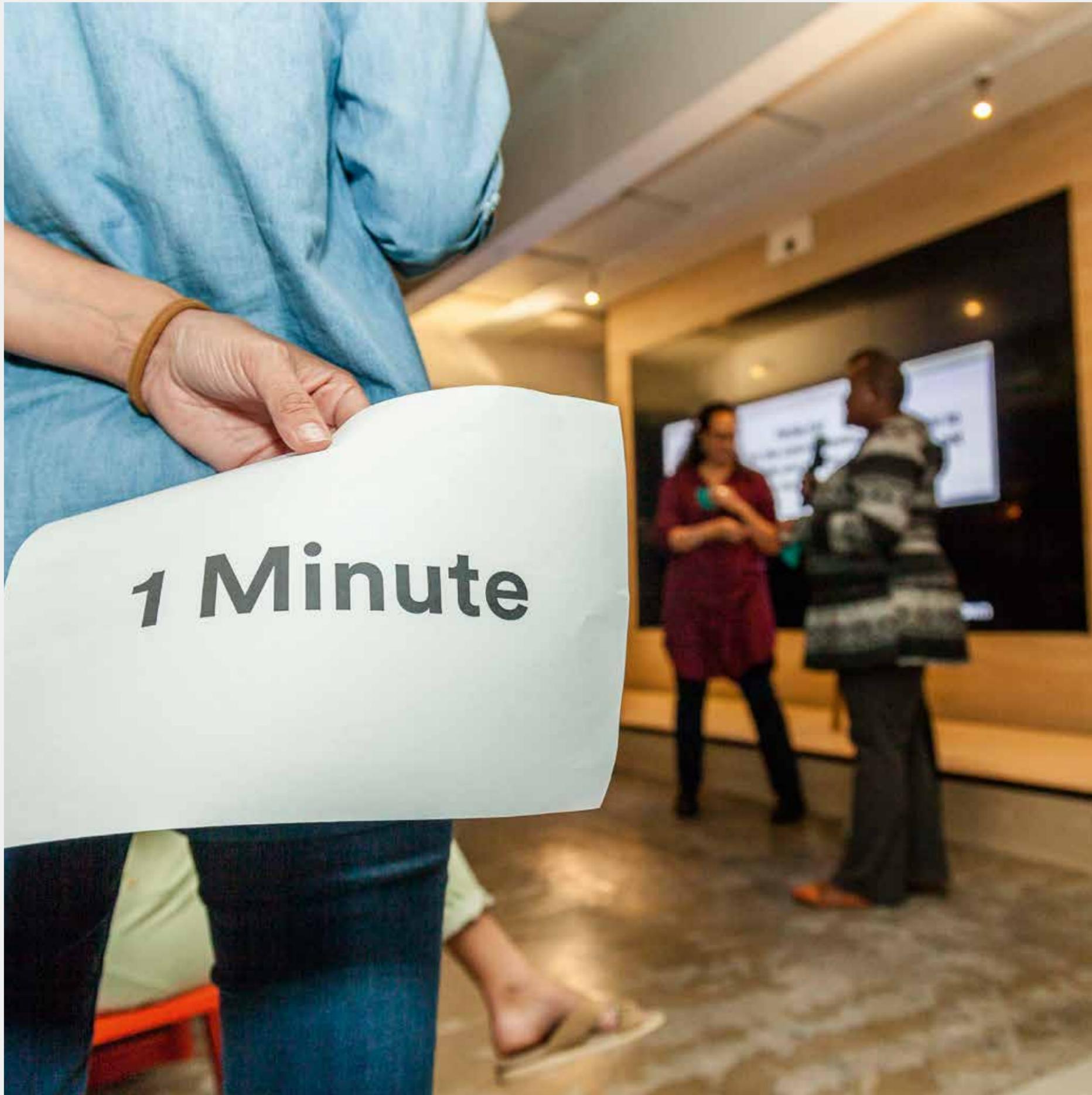
Research shows that women are more likely to save and reinvest their earnings than their male counterparts. Ironically, this enhances the negative impact of gender discrimination on financial inclusion.⁷ This is directly driven by the income gender gap observed in most developing countries, but also by social constructs built into banking systems. Conversely, women who manage to break through these barriers and gain access to financial services have, as a result, experienced a higher share of responsibilities and an enhanced influence on decision-making both at a family and community level. Younger generations are suffering from a different brand of discrimination, as financial services providers often deem them as higher risk clients. In addition, they face an even higher incidence of financial literacy compared to their older counterparts. Given the ever-increasing share of Africa's population that they represent, there should be a strong focus of financial inclusion programmes on the young.

Low and unpredictable income

One of the main barriers associated with wider financial inclusion in low-income communities is that income is realised in an unpredictable fashion. The ability to save, insure and borrow is the key to delivering more stable and visible finances to Africa's poor populations. This in turn will enable individuals to adopt a more long-term approach to building livelihoods as they are freed from the fear of the short-term shocks associated with uncertain earnings.

This point however, is also closely linked to financial literacy as 30% of financially excluded individuals are reported to believe they have insufficient income to afford banking services.

⁷ Barclays, Banking on Change: Breaking the Barriers to Financial Inclusion (2013), 11. <https://www.home.barclays/content/dam/barclayspublic/docs/Citizenship/banking-on-change.pdf>



South Africa: False sense of financial inclusion?

70.3%⁸ of all South African adults hold an account with a financial services provider. While a similar proportion of women and rural residents are reported to hold an account, only 57.8% of the poorest 40% and only 53.5% of young adults are account holders.

This suggests that age and income, rather than gender or location, act as a discriminatory factor when it comes to financial inclusion in South Africa.

Low formal usage levels of accounts

While the number of South Africans with a bank account is quite high, the same cannot be said of their formal usage. Only 26.8% of adults use their account to receive wages and 28.2% use them to receive government transfers. Pensions, savings and credit provision all record very low usage numbers in South Africa, highlighting opportunity areas for the financial services sector. While a large percentage of South African adults (85.6%) borrowed money in 2015, only 12.5% of them borrowed from a financial institution. Credit is largely concentrated around borrowing from family and friends.

⁸ Barclays, Banking on Change: Breaking the Barriers to Financial Inclusion (2013), 14. <https://www.home.barclays/content/dam/barclayspublic/docs/Citizenship/banking-on-change.pdf>

Problem statements and solutions

How might we include the unbanked and underserved in the formal economy?

The time is ripe for communities, banks, NGOs, etc. to come together to leverage the existing momentum and new, disruptive technologies for increased financial inclusion. The hackathon created a platform for these stakeholders to do just that within an intense time frame of 24 hours. We asked them an overarching question: How might we include the unbanked and underserved in the formal economy?

On the day, the teams chose between the following four problem statements:

1. Affordable savings solutions
2. Financial literacy and access
3. Microcredit and responsible lending
4. Microinsurance



a/ Affordable savings solutions

Can we harness the collective impact of community saving models, like stokvels, and scale them using technology?

Formalising savings practices is an important avenue leading to financial inclusion. According to the World Bank, moving these savings into accounts could help about 40 million women in sub-Saharan Africa gain access to a formal bank account.

In South Africa, which has a long history of community-based savings, almost one in three (30.6%) saved using a savings club or person outside of the family in 2014. In comparison, 32.7% saved with a financial institution.⁹

Banks have struggled to design attractive savings products based on their commercial viability.

Practically, the operational costs that banks face make it difficult for them to make the practice of small deposits profitable. While for the customer, the cost of having a savings account can almost outweigh the benefits of saving. The challenge at the hackathon was to design a cost-effective, convenient savings solution, which leverages the benefits of the semi-formal ways of saving; i.e., the ease of doing business within the community without the hassle of the procedure and technicalities associated with getting a formal savings account.

⁹ Demirgüç-Kunt et al., Global Findex Database 2014 - Measuring Financial Inclusion around the World, 45.



Team 1 – Savewings

Problem statement

How can a gamified¹⁰ savings platform for the informal sector encourage long-term savings practices?

Insights

- The group drew much of its inspiration from the MMM¹¹ social finance network. Based on uptake of MMM in SA, it is evident that people in fact are not risk averse.
- MMM has been successful due to tailored language, rather than using the term “investments” they use “donations” and “sharing”.
- People know that MMM is a gamble; there is potential for their money to be lost and there is the potential for MMM in SA to fail, as its international counterparts have done, but people are still willing to take this risk.
- The group drew inspiration from a participant’s home visit to Limpopo, where playing the lottery is highly popular. A new version has been released that allows people to play one ticket for multiple lottery pools.

The solution

Savewings is a platform that incorporates the highly popular stokvel model with a lottery component in order to encourage an increased focus on long-term savings for South Africans in low-income communities. This idea was inspired by the team’s recognition that South Africans enjoy gambling, as evidenced by the ever-

growing lotto market and active interest in the MMM social financial network. The question that spurred them on, was how this everyday activity could be incorporated into a responsible saving product. Savewings thus works with stokvels and encourages them to save their money in formal bank accounts.

This works in two ways:

- (1.) Invest member contributions into a short-term savings account, one-year, 7.5% interest rate: A portion of this interest would be invested into a ‘raffle pot’ that would be won at the end of the year. The stokvel would simultaneously run a competition through the Savewings platform, where each member would have to answer a question related to finance and, if answered correctly, they would be entered into the draw for the raffle.
- (2.) Invest member contributions into a long-term fixed savings account: The same principles apply here, except that interest will likely be higher, at an estimated 10% and the raffle pot will have greater size potential. The portion of the interest pulled into the pot would be higher, at 2%, increasing the potential winnings and encouraging more members to enter the financial literacy quiz.



The tech – gamification

Gamification is the use of game-design elements and game technology principles in non-game contexts. This form of technology is often applied in order to encourage people to perform activities that they would normally not be interested in, such as responding to surveys. It changes behavioural activity through ‘persuasive technology’, which results in the benefits of increased user engagement.

¹⁰ Brian Burke, The Gamification of Business (Forbes, 2013), <http://www.forbes.com/sites/gartnergroup/2013/01/21/the-gamification-of-business/#4c310c2f5d57>

¹¹ MMM describes itself as a social financial network. MMM is a community of people providing each other financial help on the principle of gratuitousness, reciprocity and benevolence (MMM South Africa, 2016).

Team 2 – Sava

Problem statement

How can young people be encouraged to take advantage of savings opportunities?

Insights

- A successful intervention would need to bridge the gap between what the community is currently doing and what they need.
- The group was conscious that it did not want to spend time reinventing the wheel but rather focusing on current systems and improving/ digitising them.
- The group felt that there was a real need to ensure community spirit, and to protect the peer-to-peer nature of the current financial processes as this forms a key part of increasing trust.
- Sava believed that there is a gap in the market that allows it to be a market builder, by helping to build the bridge between the users and the technology.

The solution

The Sava team built an affordable savings product targeting the youth. The team conducted field research by speaking to young people outside the Rise offices in Woodstock, to find out what the youth needs in terms of banking options and, more specifically, savings options. Their market research highlighted that the youth are eager to learn about money and how to save, and this, in addition to the fact that young people are early adopters of technology, drove the idea of developing a mobile app, which incentivises saving.

The app helps young people set savings goals and helps keep them on track by visualising the amount of money saved and the amount still to go. Reminders will be sent through notifications as well as tips on how to save faster. The visuals are enhanced through 'Sava Star Scores' where users will be rated on a bronze, silver or gold scale – indicating their savings progress. Sava would be linked to social media to encourage people to share their goals and achievements with their friends, hopefully encouraging more to follow suit. Sava will also have offline capability to ensure access for all.



The tech – money management application

Money management applications are a form of financial software. They track your spending habits, and give you warnings when you are about to exceed your set limits. Because these applications encourage users to monitor their spending habits, through easy-to-understand language and accessible means (mobile phones or computers), it encourages people to be more aware of their habits and to improve these habits, which will likely lead to greater returns and savings.

b/ Financial literacy and access

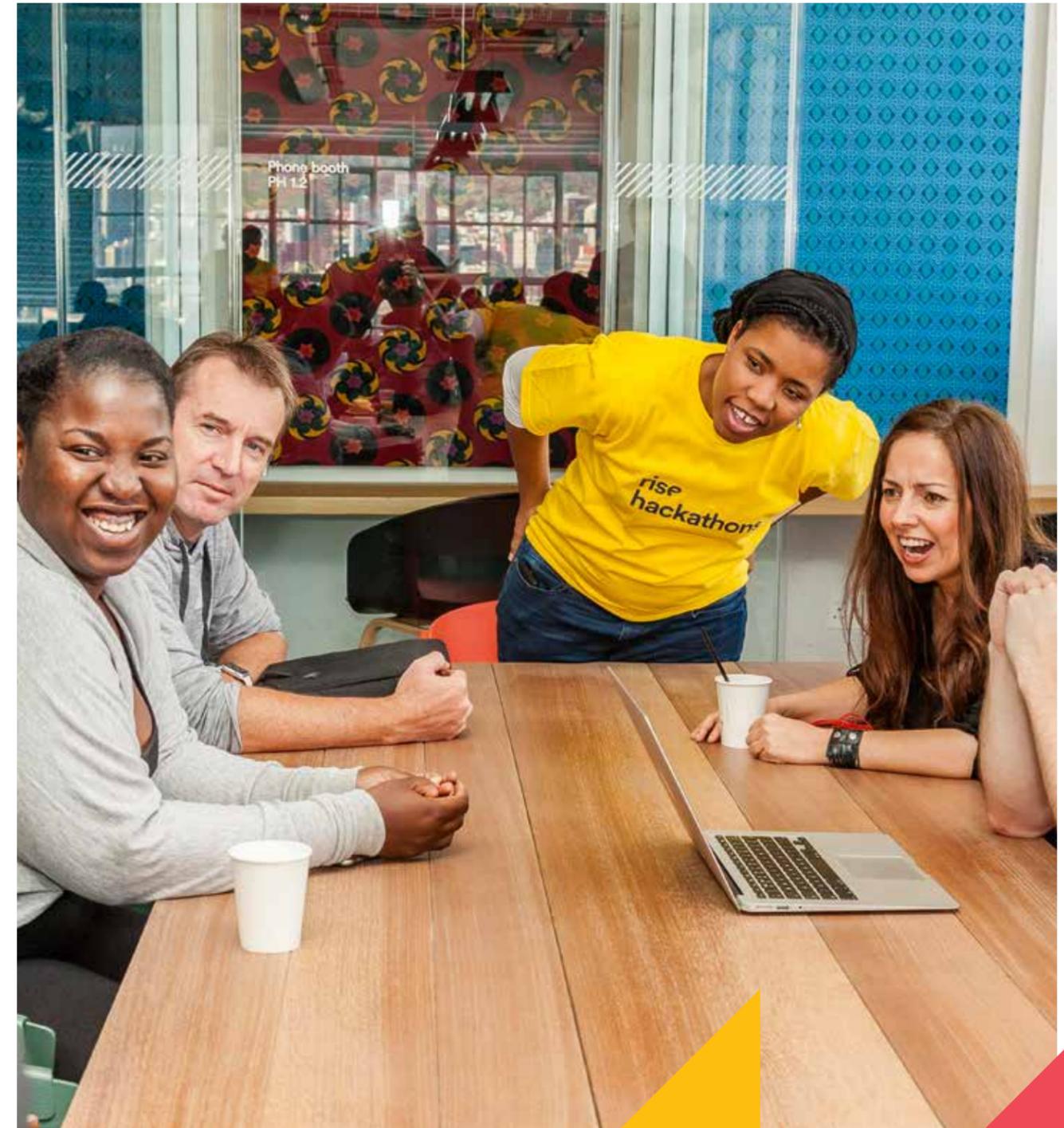
Creating products and services that are accessible for the unbanked and underserved; e.g. financial planning tools, efficient remittance platforms, mobile banking and payment platforms.

Alternative delivery channels

One of the key bottlenecks to financial inclusion has been the sheer geographical challenges of reaching the unbanked and underserved. Banks and other financial institutions are often located only in urban and densely populated areas, isolating people in remote areas far away from cities. In South Africa people who live in hard-to-reach areas of the country tend to be unbanked.¹² Thus the move towards financial inclusion needs to consider how to better improve service delivery and what alternative delivery channels could be.

Payments and remittances

For a significant amount of the unbanked and underserved, their primary money transaction is remittances – sending and receiving money to and from family, often through a money transfer operator such as Western Union. In South Africa, that was true for more than half of those who sent and received remittances in 2014. Less than one out of five used their mobile phone. Making it easier and more reliable for people to send money back home represents a considerable market opportunity.



¹² Nene, SADC Financial Inclusion Indaba.

Team 3 – uKleva

Problem statement

How might we help financially excluded consumers and informal business owners achieve financial inclusion through increased financial literacy and savings?

Insights

- In order to assist the unbanked and underserved manage unpredictable sources of income for financial sustainability, one key thing is to ensure they have access to the benefits of banking, including a successful savings plan.

The solution

“Our solution offers a value proposition that benefits financially excluded consumers, informal businesses, and government as well as creating much needed jobs in the township while solving our problem statement around financial inclusion.”

uKleva is an online banking application, which enables financial literacy by providing banking solutions to the financially excluded. The business model incorporates B2B, B2C and B2G.

B2B: uKleva is designed to encourage informal businesses to register on the platform while simultaneously opening a bank account.

Benefits include record keeping of clients, tracking customer behaviour, and access to banking services including overdraft facilities, insurance products and small business loans.

B2C: For customers, uKleva will help facilitate a loyalty rewards programme for registered businesses, which will:
(1.) help customers track their spending, and
(2.) provide rewards for their spending.
Additionally, the app would include financial literacy components.

B2G: The app will collect and aggregate data¹³ on consumer behaviour in informal markets, which would prove useful to government. A percentage of revenue created will go towards job creation and uKleva will employ ambassadors of financial literacy to run workshops.

The innovation is seen through the points/rewards system, although it is not clear how uKleva will incentivise people to join the platform and remove barriers such as the mistrust of financial service providers.

The tech – big data

Big data refers to technologies that involve data that is too diverse, fast changing or too large for conventional data infrastructure to process efficiently. It implies wider access to information and improved means of processing that information. Innovations in big data collection are allowing for increased value to be extracted from big data, for instance, a retailer can track user web clicks to determine customer patterns and trends towards improving their campaigns.



¹³The Foundation for Data Innovation (Oracle, 2015), <https://www.oracle.com/big-data/index.html>

Microcredit and responsible lending

By building bridges between the formal and informal economy, how might we rethink the traditional lending model?

The current formal credit system excludes a large segment of the population, as it requires customers to provide a credit track record, which the unbanked and underserved often do not have. In South Africa, problems associated with customer background checks go beyond the credit record problem. To simply open a bank account, formal banks will often require multiple identification documents such as proof of income, employment, proof of address etc.

According to a national household consumer survey in 2015, a quarter of South Africans in the low-income segment do not have documents that can serve as proof of address.

Moreover, almost 60% do not receive a regular salary and thus do not have a payslip. Most adults in this segment live in rural areas, often more than an hour away from their nearest bank branch.¹⁴

In South Africa, problems associated with customer background checks go beyond the credit record problem.

¹⁴ David Saunders et al., Secure Exclusion – early warning signs of a less inclusive financial sector in South Africa (Cenfri, 2016), <http://cenfri.org/aml-cft/secure-in-exclusion-early-warning-signs-of-a-less-inclusive-financial-sector-in-south-africa>

Team 4 – Tobya

Problem statement

How might we design a financial product, which combines financial literacy and microcredit, in order to encourage responsible borrowing?

Insights

- People in low-income communities often find themselves with high levels of debt due to limited options for credit.
- People land themselves in debt because they have a limited understanding of compound interest and the impact this has on their repayments as well as long-term liquidity.
- Lack of financial literacy can also lead to people being more exposed to ponzi or pyramid schemes and loan sharks.
- Credit in the informal sector offers extremely high interest rates, sometimes as high as 50%.
- A large percentage of families in townships use lay-by accounts for their big retail purchases – furniture and clothing.

The solution

“Compound interest is the eighth wonder of the world. He who understands it, earns it, he who doesn’t, pays it.” Albert Einstein

In recognition of the limited responsible credit options available to people in low income communities, Team Tobya saw it fit to build an app which would educate people on credit and specifically compound interest and what it means for their loans and repayment plans.

Tobya is an automated financial partner, a financial fitness coach or money management app, in your pocket that serves to educate and advise on compound interest. Tobya looks at your loan, the amount to be repaid, how much your monthly repayments are and advises on whether it is a good deal or not.

The app would not only educate clients about compound interest, the exponential effect of tiny yet good money decisions, but also increase their understanding of financial services in general.

Using roboanalytics¹⁵, the app provides high-quality advisory tailored specifically for low-income communities. Because the app removes the human advisory element, there can be no bias when dealing with users in the unbanked and underserved markets. The user could turn to Tobya when deciding whether they can afford to take out a new clothing or furniture lay-by account, or taking out a loan with a financial services provider.



The tech – roboanalytics

Roboanalytics refers to computerised systems which offer advice and recommendations on the optimal portfolio given a clients risk profile and their wealth level. These systems can tell users how best to invest and what to do in order to maximise their wealth.

¹⁵ Thomas Davenport, Are you ready for robo-advice? (International Institute for Analytics, 2015), <http://iianalytics.com/research/are-you-ready-for-robo-advice>

Team 5 – Mamghobozi

Problem statement

How might we make it easier for stokvel members to assess the creditworthiness of lenders?

Insights

- Stokvel members lend to people inside and outside of the stokvel community, each stokvel member has their own loyal ‘customer base’ of lenders.
 - Lending is based on personal relationships, social capital and informal references. Often, the stokvel member will pass by a potential client’s house as a reference for creditworthiness as well as to gain insights from neighbours.
 - This informal way of evaluating clients limits lending to people outside of the stokvel members network.
- It also makes it difficult for the lender to assess the real creditworthiness of the client as well as the likelihood of repayment.
- Credit in the informal sector offers extremely high interest rates, sometimes as high as 50%.
 - When repayment does not take place, stokvel members often repossess some of the client’s belongings to cover the loan amount. This is important, as each individual lender is personally liable for their loan portfolio.
 - A rating solution should be tailored towards the informal economy, for instance, by taking unpredictable income into account as opposed to payslips.

The solution

“A peer-to-peer rating platform for stokvel lenders, based on informal economy metrics.” Mamghobozi means ‘ear to the ground’, and is an app that helps lenders and clients connect with each other by leveraging social capital and informal economy metrics.

The solution is based on the way AirBnB and Uber build trust between clients that are ultimately strangers; through references and ratings. It also leverages the peer-to-peer unsecured lending innovations in the formal economy by making use of similar credit evaluations.

The app enables the client to tell the lender how much he or she is looking to borrow.

The app is based on:

- (1.) the client’s expected cash flow based on past earnings, for instance, from washing or babysitting, and
- (2.) references from a minimum of three people; one colleague or employer (past or present), one family member, and one friend. Where possible, this should be replaced by a member of a stokvel that has previously provided the client with a loan.

The group debated whether it was possible to imitate the house visits that are currently taking place, by listing assets or pictures of the client’s house on the app. This was however decided against due to safety measures.



The tech – peer-to-peer lending (P2P)¹⁶

The P2P lending model is one whereby an online platform is established to link borrowers that are seeking loans directly to investors. The platform generates revenue by charging borrowers an origination fee and they also take a percentage from the interest charged on the loan as ‘service fees’.

The benefits of the P2P model are:

- (1.) they often have low interest rates in comparison to banks,
- (2.) they have simple application processes,
- (3.) lending decisions are made quickly, and
- (4.) they offer 24/7 online access to the decision on loans.

¹⁶ Peer pressure: How peer-to-peer lending platforms are transforming the consumer lending industry (PriceWaterhouseCoopers, 2015), 1. <https://www.pwc.com/us/en/consumer-finance/publications/assets/peer-to-peer-lending.pdf>

Microinsurance

**One major risk event
e.g. a death, health scare
or loss of valued property
can knock a family's financial
resilience – how do we build
products to reduce the impact
of these events?**

Knowing that you and your family will be safe in case of a health scare or an accident provides peace of mind for most people. That is the value of insurance, though mostly out of reach for the unbanked and underserved, whom are particularly exposed to risk and have limited resources to draw upon in times of need. Traditional insurance products are often ill-suited to serve these customers as well as often not economical for the insurers.

However, 2015 welcomed InsureTech to the FinTech stage. Industry experts expect to see significant growth in this space in the immediate future, building on digitisation and new business models and partnerships. Although the industry needs to focus more on adapting to customer needs (Leach and Delichte, 2016).¹⁷

¹⁷ Jeremy Leach and Jodi Delichte, Massive Opportunity in Emerging Consumer Market (Cover, 2016), <http://www.cover.co.za/investment/massive-opportunity-in-emerging-consumer-market>

**Traditional
insurance
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the insurers.**

Team 6 – Microinsurance – Ghana

Problem statement

How might we make health insurance affordable for low-income communities in Ghana?

Insights

- People don't trust insurance companies in Ghana.
- Although people take for granted that they fall sick or could be involved in an accident, people still prefer not to pay for insurance.
- There's a gap in the market for a marketplace that links low-income customers to insurers.
- There is a market opportunity for bulk insurance purchases, such as a stokvel for insurance.
- For insurance to be successful, there is a need for people to pay a premium, even a small one, to ensure that they have some skin in the game.

The solution

Team 6 came up with the winning solution for microinsurance in Ghana.

“A marketplace for healthcare insurance, that is affordable and transferable through a digital voucher system that is leveraging existing susu/stokvel models and existing healthcare providers.” This model provides for the sale of a tangible unit of healthcare, in this case, a malaria treatment.

Healthcare insurance is placed onto a voucher, which is redeemable from a healthcare provider; one voucher equals one malaria treatment, including the doctor consultation and medication.

The team found that people in Ghana mostly do not buy insurance products because they are not tangible.

Creating insurance vouchers changes customers' experience as they can see what they are paying for.

Additionally, insurance is made affordable by encouraging communities, susus/stokvels, to buy the vouchers as a group. The group will disseminate the vouchers as per its membership stipulations, ultimately bringing down the cost per hospital visit when individual members fall sick.

As per traditional insurance products, the vouchers would have an expiry date, thus vouchers would be transferable from one person to another, the sale of which would increase revenue and the savings pool for the susus/stokvels. The voucher system will be backed by a web and USSD portal where vouchers can be purchased or transferred and secured on the blockchain.



The tech – Blockchain

Blockchain is an accounting innovation. It is a distributed ledger system, or in other words a public accounting ledger, found in the cloud and provides for a secure permanent record that cannot be manipulated by a single entity.¹⁸

Blockchain is open to all Internet users and designed to be a development platform. Anyone can read, submit transactions and verify/validate transactions and users are anonymous only known by their usernames.

¹⁸ Dong, He et al., Vital Currencies and Beyond: Initial Considerations (International Monetary Fund, 2016), 18. <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>

Conclusion

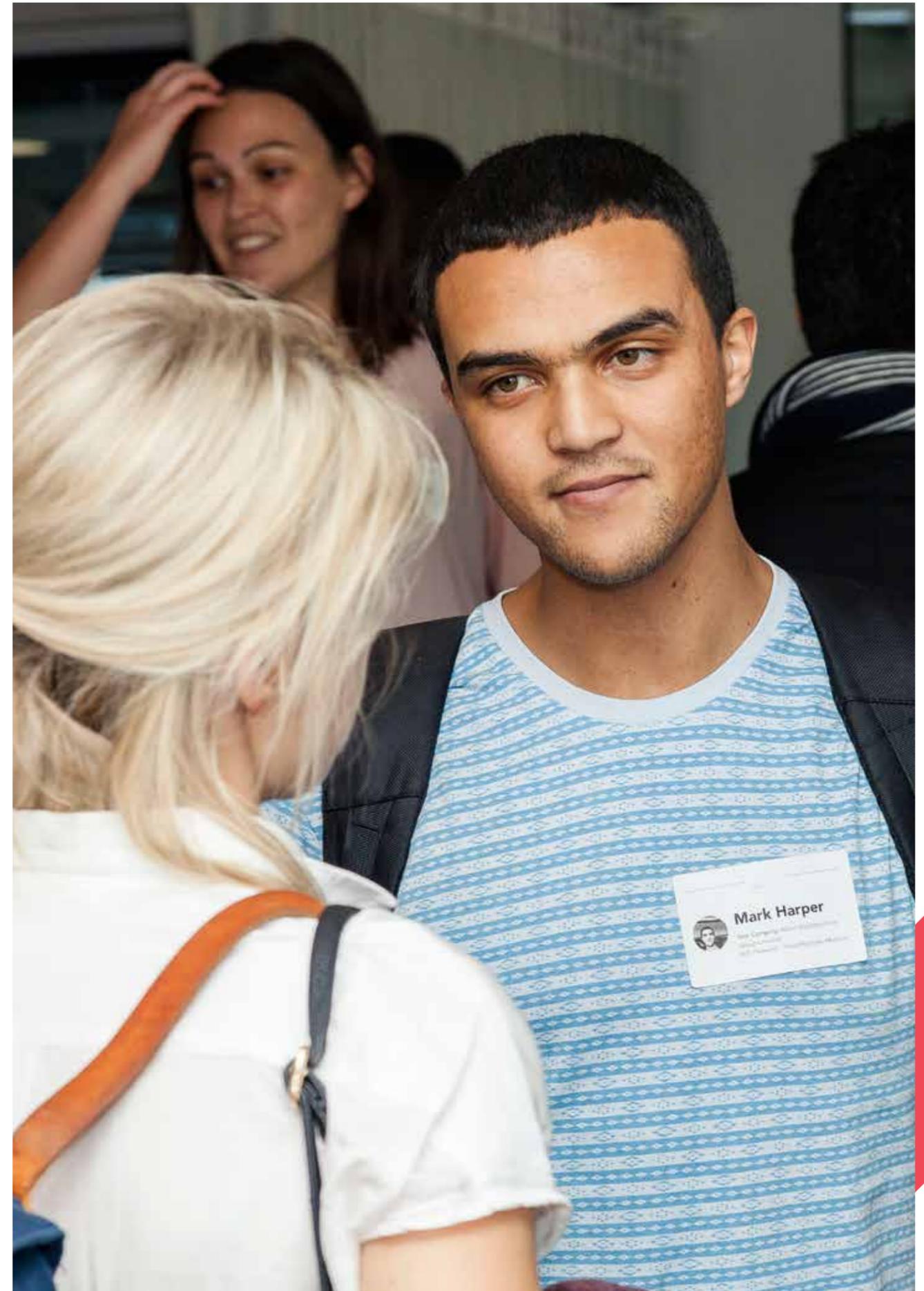
The hackathon brought the relevant stakeholders around the table and introduced them to human-centred thinking as a methodology for future developments.

Although the financial inclusion and technology revolution is taking place all around us, it still faces significant challenges. In his presentation Jeremy Leach highlighted the fact that mobile money and subsequently mobile financial services, have not spread as fast as expected. In spite of the technological potential, financial services are often not meeting the customers' actual needs – a challenge that the hackathon was designed to overcome.

Team 6 won as they did just that, solve a problem with the end-user in mind based on the designers' intimate experience with the problem.

However, the hackathon also made evident just how challenging this is; although one of the key objectives. The hackathon uncovered six innovative solutions, that could be taken forward by the groups or hackathon partners independently.

More importantly, it brought the relevant stakeholders around the table and introduced them to human-centred thinking as a methodology for future developments. It also helped build a local ecosystem, as all the partners are committed to developing long-standing relationships and taking the conversation forward.



Idea 'Bin'

As each group circled in on their ideas and prototypes, many ideas were 'binned'.

These are some of them:

Indiegogo for townships

This idea was inspired by the 'tale of two cities' scenario found in Johannesburg, where Sandton – home to the wealthy, upmarket shops and a modern business HUB – is separated by a highway from Alexandra township, where the standard of living is drastically different. A crowdfunding platform would take advantage of this scenario, where township residents would be beneficiaries and Sandton residents would act as benefactors. Ultimately, this idea was rejected as not being viable and raised more questions than it answered: who's putting the money in? What would their incentive be?

Stokvels lending to SMEs

The idea looked at the practicality of lending stokvel money to SMEs. The major problem arising was that oftentimes, SMEs fail and stokvels are not in a position to lend money when there is a high risk of not getting the money back. An additional challenge arose out of how businesses should be vetted for inclusion in the scheme. Stokvels will not have the mechanisms to ensure a full vetting process, leaving room for them to be cheated by fly-by-night businesses.

WhatsApp insurance

This idea examined the possibility of creating a healthcare insurance product based on a community profile; this would allow a group of people to come together and buy insurance as a group. They do not have to be people from the same area, but can be under one WhatsApp group to leverage the law of large numbers; however, this was deemed not viable from an insurers perspective, as it would be difficult to profile this group and management of premium payments might become tricky and overcomplicated.

A mobile money platform for stokvels

A stokvel member voiced the frustration that every Sunday, members leave the meetings with large amounts of cash that they will be lending to clients. As people in the township are aware of this, the members are exposed to theft, which leaves them feeling vulnerable. This anecdote led to the idea of creating a product that would enable bank accounts or mobile money transfers thereby limiting exposure to theft. Ultimately, this idea replicates the start of M-Pesa as a microfinance disbursement tool.

Double bank accounts for salary vs spending

Leif Petersen (Sustainable Livelihoods Foundation) demonstrated that money spent in the townships is often concentrated around the weekends and is often spent in one-go. Sparked by this, was the idea of creating a double-bank account, where money is deposited into one account and immediately channelled into another in smaller chunks. This idea was abandoned due to the group's limited understanding of behavioural economics and the fact that a lot of people do not get paid through a bank account in the first place.

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