The solutions are inside

BRAIN
Something to think about: why scaling social innovations is NOT like popping a pill.
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HEART
A South African healthcare initiative that’s finding and rewarding doctors, nurses, students and community workers who innovate.
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HAND
African mobile and web-based tech that empowers people to demand change.
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LEGS
Seven award-winning healthcare innovations that are carrying Africa forwards.
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SPECIAL SUPPLEMENT
Explore the Solution Space. African innovation happens here.

WORLD DESIGN CAPITAL
CAPE TOWN 2014
Inside where?

We talk a lot about working from within. We talk a lot about solving problems from the inside out. We’ve even called this paper Inside|Out. But what exactly are we trying to be inside of?

By Justine Joseph and François Bonnici

It’s simple, really. The aim is to be inside of the space where the problem lies. This means working from within the region, town, community, organisation, hospital or school whose needs are being met. In other words, the innovator who comes up with the solution actually lives or works inside that space and so understands it practically, empathetically, deeply.

But wait. What happens if you come from outside? What if you come from another country or even continent than the one in which you’re trying to have an impact? In other words, how do you work from within when your starting point is without?

That’s what this issue is all about. It’s about finding the meeting point, striking the balance between local context and external ideas. As always, there’s something to be taken from both – a message that was patently clear at the inaugural Inclusive Healthcare Innovation Summit, held in Cape Town in January 2014. As part of the Inclusive Healthcare Initiative (launched jointly by the University of Cape Town’s Faculty of Health Sciences and the Graduate School of Business’ Bertha Centre for Social Innovation) the Summit was the first of its kind in Africa. It brought together local and international healthcare educators and innovators, and highlighted the need for those who come up with the solution actually lives or works inside that space and so understands it practically, empathetically, deeply.

These are the people who know and understand that space, practically, empathetically, deeply. And this issue of Inside|Out features many of their words, how do you work from within when your starting point is without?

Doctors are trained to meet African needs.

“As everybody knows, we have a shortage of specialists on the African continent, and it’s a critical barrier to progress. But the problem is that our model for creating these types of specialists is based on European and US models, and often you’re trained far beyond what your country requires. “

“Mobile Xhosa aims to be one of the tools doctors can use to overcome the language barrier during medical consultations, along with interpreters and language training. It helps so much to be able to explain to a patient that you will be taking blood, for example, so that they understand what you’re doing and why it reduces anxiety and improves the quality of care.”

Mobile Xhosa

“Mobile Xhosa is a free-to-access, cellphone-based tool that aims to help doctors and other healthcare workers communicate with their Xhosa-speaking patients.”

So we’re beginning to see a situation in which you start training a person to address a country’s needs; then they go back and develop a service; then that service demands a higher level of training; and so they come back for more advanced training. And it spirals from there.”

Mobile Xhosa

http://mobilexhosa.org.za

A SOURCE OF GREAT THINGS

The health innovation features on pages 14-15, 20-23 and 28-31 of this edition of Inside|Out have been adapted from the 2014 Health Innovator’s Review, compiled by Inclusive Healthcare Innovation, a joint initiative between the Bertha Centre for Social Innovation and Entrepreneurship and the University of Cape Town Graduate School of Business, and the UCT Faculty of Health Sciences. http://gsbblogs.uct.ac.za/inclusivehealth

Health Innovator’s Review, 2014

Editors: Dr Lindi van Niekerk and Dr François Bonnici

Contributors: Gus Silber, Mark van Dijk, Dirk Hanekom, Rachel Carter, Adam Shear, Sebastian Basler, Anjali Sastry, Wim de Villiers, Andrew Jack, Gary Marsden, Richard Perez
Dr Lindi van Niekerk is a medical doctor and the Inclusive Healthcare Innovation (IHI) Lead at the UCT Bertha Centre for Social Innovation. “As a young doctor, I was driven to cure patients,” she says, “but I soon realised the answer often didn’t lie in my prescription.” That’s when she and colleagues set up an End of Life care programme for terminal patients and their families. The project is still running and growing. It also set Lindi on a search for more real solutions to real-world problems. In January 2014, she pioneered the IHI Summit in Africa and also produced a 112-page Health Innovator’s Review profiling hands-on innovators improving local healthcare every day.

If the question is, "What makes healthcare better?" then the answer is meeting patients’ needs better. Simple. No one understands these needs better than the people who work with patients every day. So it makes sense that the most effective ideas will come from them. This is inclusive innovation. Here’s how it works in a doctor’s own words.

By Lindi van Niekerk

Innovation is not rocket science. But it is a new way of thinking and doing. It starts with considering problems from the patients’ perspective. Then it moves on to developing creative solutions that truly meet their needs.

All too often, when working at the coalface in hospitals and clinics, healthcare workers are overwhelmed by the challenges and limitations that prevent us from achieving our goals. But even if we can’t cure patients, we can still care for them. So I believe the potential for transforming healthcare in Africa lies with the dedicated frontline health workers who understand the needs of their communities best.

However small, if each of us uses our experience and empathy to develop a solution for better delivery of care, the cumulative effect could be totally transformative. This is the thinking behind the IHI initiative at the Bertha Centre. It’s all about encouraging inclusive, effective and affordable solutions, developed by inspirational individuals and organisations to meet pressing health needs of patients or communities.

How IHI happened:

NOMINATIONS
In July 2013, we sent out an open call for nominations of South African healthcare innovations. The results were completely unexpected: we received more than 100 nominations!

CRITERIA
Solutions had to be inclusive (in equity and access), improving health outcomes and affordable (by being efficient or reducing cost).

SELECTION
All the remarkable health workers, social entrepreneurs and organisations were put before an External Review Panel of local and international experts in medicine, public health, innovation and design.

REVIEW
Only 15 solutions were finally chosen to be featured in the first Health Innovators Review. The innovations were divided into five sections, which outline the areas of interest and intervention that will help reimagine healthcare in South Africa.

WINNERS
One (or two) winners were chosen from each section – turn to page 8 to find out which ones made the final cut.

But now, let’s examine the five areas of Inclusive Healthcare Innovation. It’s the first step towards finding, developing and nurturing solutions that will allow all Africans to receive equitable, accessible and human-centred healthcare. The journey starts here.

1. Needs and opportunities for innovation

The most exciting opportunities for innovation lie on the boundary of established theory and the unknown. But finding them requires an understanding of this new territory.

When you arrive in a new city, you might find your way just by walking around. Or you could be guided by a map. But far more effective is to do both, combining ground-level experience with higher-level guidance. The same applies to healthcare innovation. We need to explore the needs of the territory, the potential stakeholders and the unknown places where new solutions lie.

To begin, ask yourself...

• Who is involved in this project or field (hands-on and at higher levels)?
• What are the specific needs of the community or people being served?

What are the possible opportunities for innovation by...

• Health workers
• Students
• Entrepreneurs
• Organisations
• Community members
2. Collaboratively reimagining healthcare

Close your eyes for a moment, and conjure up a picture of healthcare in South Africa and the continent. Perhaps you see a waiting room full of people, some in wheelchairs, some lying on the floor, all hoping to be seen, all desperate to be healed. Perhaps you see a tiny rural clinic built out of mud or a big state hospital where doctors and nurses battle long hours and scarce resources to provide quality of care and quality to life.

These are unvarnished pictures. In our country, on our continent, these problems are ubiquitous and vast. But, often, we get tangled in the problems of the here and now. This means we don’t see beyond them to what could, or should, come to be.

So we need to start by imagining – or reimagining – the idea. Only then will we be able to focus our energies on making it an everyday reality. We also need to think, dream and plan collaboratively. Why? Because innovation calls for co-creation: the idea. Only then will we be able to focus our attention to the here and now. This means we don't see beyond the problems of our continent, these problems are ubiquitous and vast. But, often, we get tangled in the problems of the here and now. This means we don’t see beyond them to what could, or should, come to be.

To begin, ask yourself:

• How many innovative healthcare workers do you think there are across the continent?
• How could we, as citizens, experts, corporates and academics, support them to what could, or should, come to be?
• How could we, as citizens, experts, corporates and academics, support the community to what could, or should, come to be?
• How do we develop more simple, affordable, accessible solutions that empower, enhance and save patients’ lives, while also leading to greater efficiency and cost reductions?
• How can we work together to do this better?

3. Transforming the system from the inside out

The healthcare system is more than just a collection of hospitals and institutions. It is also the people who work and seek help inside those buildings. This is why potential change resides within the system – within the people – particularly the healthcare workers who dedicate their lives to serving their patients and communities.

Yes, South Africa’s healthcare workers are a force to be reckoned with. But despite their noblest intentions and efforts, even the most basic healthcare tasks can be very complex in Africa. Resource shortages, poor management and system failures all contribute to challenging conditions that are demotivating and demoralising. It is a hard job. But still, there are those practitioners who endure and go beyond the call of duty to deliver the best possible care.

Then there are those who go even further, using their deep medical knowledge and experience to develop innovative solutions that empower, enhance and save patients’ lives, while also leading to greater efficiency and cost reductions. These extraordinary individuals are transforming healthcare from within. They are the system, bringing about positive change from the inside out.

To begin, ask yourself...

• How do we develop more simple, affordable, accessible solutions that empower, enhance and save patients’ lives, while also leading to greater efficiency and cost reductions?
• How can we work together to do this better?

4. Minding the gap

To begin, ask yourself...

• How many innovative healthcare workers do you think there are across the continent?
• How could we, as citizens, experts, corporates and academics, support the community to what could, or should, come to be?
• How do we develop more simple, affordable, accessible solutions that empower, enhance and save patients’ lives, while also leading to greater efficiency and cost reductions?
• How can we work together to do this better?

5. Technology enabling inclusive care delivery

Today’s technology has the potential to enable healthcare delivery like never before. But we cannot be naive enough to assume that the impact will always be positive. As Gary Mansons states, quoting Melvin Kranzberg’s maxim:

“Technology is neither good nor bad, but nor is it neutral.”

So how do we as innovators develop a technological consciousness? We need to learn from innovators who have harnessed the power of technology for greater inclusiveness. This “inclusiveness” refers to greater accessibility and affordability, as well as the way the interventions enable and empower more people to receive the care they need. In other words this tech is not elitist, expensive or out of reach.

With 253 million mobile phones across sub-Saharan Africa, the connectivity revolution is putting information in the hands of millions. But it is not the “what” but the “how” that really matters.

The message: technology can only be truly inclusive and effective when it is inclusive, or “democratised”. And the best way to achieve that is through collaboration and co-creation.

To begin, ask yourself...

• What healthcare needs can be answered using technology?
• But how do we ensure that our information on these needs is contextually and culturally specific?
• Are we designing tech products based on our perceived understanding, or out of empathy and deep knowledge of communities’ real needs and access?
• How do we develop more simple, affordable, accessible products and services?
• How can we work together to do this better?
Winning innovations

Nominations poured in. There were so many innovators to consider and commend. But, at the close of the first Inclusive Healthcare Innovation Summit in Cape Town, a winner (or two) was finally chosen from the finalists in each of the five award categories. Meet the prize-winning people and projects here...

By Gus Silber

1. The Collaboratively Reimaging Care Award

OPERATION SUKUMA SAKHE
KwaZulu-Natal

The health innovator
KwaZulu-Natal Office of the Premier and BroadReach Healthcare.

The innovation
Operation Sukuma Sakhe (OSS) is a united front against poverty and illness, bringing Government, municipalities, NGOs and communities together to fight poverty in one of South Africa’s poorest provinces.

The action
Sukuma Sakhe means “Stand up and Build” in isiZulu. It is the rallying cry of an initiative that takes its cue from the National War on Poverty Campaign, which was launched in 2008 by then-President Thabo Mbeki in his State of the Nation address.

OSS is a regional spin-off of the campaign, seeking to unite political and traditional leadership, civil society, community organisations and communities themselves, in the quest to combat poverty and its side effects.

Building on the military metaphor, OSS acts as a united front that battles poverty from “War Rooms” in municipal wards. These are bases for Community Development Workers, Community Caregivers, Youth Ambassadors and other field workers, who can be called on to work towards the ideals of poverty alleviation, and meet people’s most basic needs.

The need, explains Dr Fikile Ndlovu, General Manager: HIV and AIDS, KwaZulu-Natal Office of the Premier. “It is an approach.”

But OSS tackles the causes of poverty as well as the symptoms. The ultimate goal is to get people to take charge of their own escape from the spiral. “We encourage people to garden, to work with their hands, to look at commercial ventures,” says Dr Ndlovu. “It’s amazing to see how [they] are able to motivate each other and start thinking for themselves.”

Dr Veni Naidu, from Social Partner of OSS, BroadReach Healthcare, speaks of the “path of graduation” from poverty to independence: “There is documented evidence of people improving their circumstances to be gainfully employed. There is a bursary scheme from the KwaZulu-Natal Premier’s Office. Community Caregivers are provided career opportunities to further their studies and to go on to qualify as healthcare and auxiliary social workers.”

In turn, these “graduates” serve the community and so become part of the greater campaign to win the war. Already more than 2 000 Community Health Workers have been trained in primary-health skills, including HIV and TB screening, monitoring early childhood development, checking ARV adherence, and performing home-based care.

The collaboration
OSS’s integrated, multidisciplinary approach calls for strong support from Government and province, working across departments to coordinate and deliver services. But it also calls for methodical reporting from the field, where community workers and Ward Councillors provide intelligence on poverty levels and urgent cases of need.

But while OSS fights the war on poverty from the top, the secret of its success is that it is led from the field.

“The community leads the response and identifies their needs,” says Dr Naidu. “Then the service providers, such as Government, local municipalities, NGOs and the communities themselves, deliver the services required to move individuals and households to independence.”

The lesson learned
Big challenges call for bold initiatives, and bold initiatives call for integrated action. No single individual or organisation can hope to overcome a foe as powerful as poverty when working alone. But by joining forces, and by organising a campaign with clear strategy, strict discipline, and strength of purpose, many people, together, can win the battles.

Gus Silber is a journalist, author, editor and scriptwriter based in Johannesburg. His books include The Phelophepa Health Care Train, Ten lessons From the Future and Radical Innovation, co-authored with Wolfgang Grulke. “Healthcare and innovation happen to be two of my abiding interests as a journalist,” he says. “Too often, we focus on the gloom and doom surrounding social services in our country. The IHI Review was an opportunity to shine a light on the good and the great.” Memeburn considers Gus one of the 50 prominent South African journalists on Twitter. Find out why: @gussilber.
The eCCR (Electronic Continuity of Care Record) is a software application designed to integrate and digitise medical records for patients being discharged from public health facilities.

The action
Groote Schuur Hospital in Cape Town was the site of the first-ever human heart transplant in 1967. It stands at the very heart of innovation in healthcare, in South Africa, and around the world. How appropriate, then, that it continues to set the pulse of progress in patient care, as the pilot site for a groundbreaking new application, the eCCR.

It was developed by a multidisciplinary team at the Western Cape Department of Health (DoH), faced with the challenge of too much paper and red tape. Why? Because healthcare takes its cues from the needs of patients, meaning medical records are essential. One of the most vital of these is the Continuity of Care Record, which tracks a patient’s progress through the system and allows for seamless transfer to other providers.

But poor record-keeping is a frequent and frustrating companion for public healthcare workers in South Africa. “It would drive me bonkers in hospital,” explains Du Plooy. “As well as a description of the journey to achieving a desired health outcome.”

In addition to guiding patients towards health, the eCCR database is also a valuable tool for clinicians wanting to audit quality of care, and draw up disease profiles.

Initial results – at the Groote Schuur Department of Internal Medicine – have been very encouraging, with primary discharge ICD code coverage going from 10% to 100% for a sample of 40 records. Since the eCCR software is generic and scalable, it could easily be implemented at other healthcare facilities with computers and printers. It’s also intuitive enough to require only a 20-minute orientation for use in the field.

The lesson learned
Public healthcare is still a long way away from the ideal of the truly “paperless hospital”. But, by crystallising a need and then applying their energies to developing a solution, the eCCR team has shown that technology and knowledge can help ease the malaise of too much paper, bound up in too much red tape.

The innovation
The eCCR (Electronic Continuity of Care Record) is a software application designed to integrate and digitise medical records for patients being discharged from public health facilities.

The health innovator
Western Cape Department of Health (DoH)

The solution
Developed by software programmer Shane du Plooy (who gave up many lunch hours at the Western Cape DoH to work on it), the eCCR is a computer application that integrates and standardises all necessary forms, making it easy to capture ICD codes, prescriptions and other data before discharge. This makes it a valuable resource to role-players across the spectrum of care. This was probably the greatest developmental challenge, says Du Plooy.

From pharmacists and finance officers to hospital managers and clinicians, a wide range of stakeholders’ needs had to be met. There were issues of ethics and data security, as well as compliance with national health standards and funding frameworks of major health programmes, such as HIV and TB.

But in this delicate give-and-take, the guiding principle always remained the same: patient first.

“The eCCR provides the patient with a comprehensive summary of their stay in hospital,” explains Du Plooy, “as well as a description of the journey to achieving a desired health outcome.”

It also emphasises life skills, understanding and coping. Working with a team of physiotherapy assistants and community-based volunteers – including parents who run disability centres in their own villages – Rauter has shifted the focus from institutionalisation to integration and inclusion. There are practical courses for mothers and caregivers that help them to accept and bond with children, and to stimulate their development. Through counselling, therapy, workshops and district-based training in the local language, the centre imparts skills and improves lives.

Disability, says Rauter, is not seen as something to be pitied, and its limitations are not seen as an excuse. The simple ability to communicate, using a laptop, or motoring around on an electrical wheelchair, can be a breakthrough for a young person who would have been bed-ridden and isolated.

Also, given access to long-term study and work opportunities, severely disabled children have a better chance of becoming self-sufficient adults who can contribute to society and become breadwinners for their families, says Rauter. The centre has been able to place children with Cerebral Palsy in school, and employ people with disabilities in its busy wheelchair workshop, where innovations have included the provision of customised prone trolleys for a group of young paraplegics.

Rauter speaks with motherly pride, too, of an intervention that introduced one of the toughest, most demanding sporting codes to Gelukspan. Wheelchair basketball, the Gelukspan Basketball Team, known as ORB Mongoose, has gone as far as producing players for the national squad. But the real triumph for Rauter has been seeing the “graduation” of her University of Life taking charge of their own destiny.

The lesson learned
For Mmatumelo, the Mother of Faith – who came to visit and chose to stay – innovation in healthcare is a marathon, not a sprint. Take it step-by-step. Work to understand the people and their challenges.

And budget your strength. The road is hard and you need to be strong.
That’s the key: quick and effective action. For the medical practitioner, the challenge is to identify the toxin, often from the sketchiest of clues, and apply the correct treatment in time. Clearly, knowledge is the primary antidote. But this knowledge hasn’t always been quick or easy enough to access.

The database avoids the “tidious process” of trying to get through to a poison centre and calling repeatedly for a complex case, says Dr Roberts. It also saves the greater system money and time. Roberts points to an authoritative US study showing that each dollar spent on a Poison Information Centre (PIC) avoids $14 being spent elsewhere in the healthcare system. That’s a 1:400 return on investment in healthcare.

It’s also a massive time-saver. Doctors can use AfriTox to identify harmful substances in a product that may hold no information other than the brand name. They can then determine whether the dose is dangerous and follow more than 600 treatment protocols.

“The more poisoned people are saved by fast, appropriate treatment,” says Roberts, “the more money is saved and, most importantly, harmful, unnecessary treatments are avoided.” So AfriTox has a place in the smallest public clinic and the largest private hospital, says Roberts. It saves time, it saves money and, in a world where curiosity and misadventure can lead children into danger, it holds the power to save lives.

The lesson learned

Innovation is just the beginning. Doctors and other healthcare workers need to change their business as usual and learn to “talk up” what they are doing. Why? To create a broader awareness of the features and practical benefits of their innovations.

“Better solutions are saved by fast, appropriate treatment,” says Roberts, “Hospital stays are shortened and, most importantly, harmful, unnecessary treatments are avoided.” So AfriTox has a place in the smallest public clinic and the largest private hospital, says Roberts. It saves time, it saves money and, in a world where curiosity and misadventure can lead children into danger, it holds the power to save lives.

AfriTox is a digital and online database of toxins and toxic substances, providing easy access to potentially life-saving knowledge in emergencies.

The action

Children drink paraffin. Toddlers eat pest poison. Hikers pick the wrong plants. The Umthombo Youth Development Foundation addresses skills shortages in health science careers. From an original 200 toxins, AfriTox has grown to more than 40 000. It’s provided free to public health facilities and for an annual subscription fee to registered practitioners. It can be accessed anywhere with a computer, smartphone or tablet, plus a downloadable version is available for areas with intermittent internet access.

It’s really working, says Umthombo Founder and Trustee Dr Andrew Ross. “We had people telling us, ‘It’s impossible, you’ll never find the right people. And even if you do, they’ll never succeed at university. And even if they do, they’ll never go back home to practice’,” he recalls.

Wrong, on all counts. The programme has already produced 180 graduates in 16 health professions, and over 80% are still working in rural healthcare, within their home communities. Only seven have moved into private practice. Umthombo graduates can communicate with patients in their mother tongue, and are held in high esteem in their communities. As part of the programme, they also go back to their high schools and motivate other students. “The fact that you’ve got local students going back to their home communities encourages everyone else in the area,” says Dr Ross.

For director of the Foundation Dr Gavin Gumede, the big lesson has been that rural youth don’t have to trade their roots for success. “There’s huge potential for greatness here,” he says. “We need to develop these areas, not just give up and go to the city.”

That said, rural youth are sent to cities to study at tertiary institutions. Here, far from home, they face challenges including English as a medium of instruction, and the fast pace of academic programmes.

Living up to its name, meaning “well-spring” in Nguni languages, Umthombo acts as an important source of support. This is delivered through a mentorship programme headed by Dumisani Gumede, who graduated as a physiotherapist in 2004. There are 14 volunteer mentors across the country, offering practical guidance and moral support by SMS, email and monthly meet-ups. Holiday work at local hospitals also assists students with practical skills, and helps build relationships with hospital staff.

This is just part of a project that has become a model of rural healthcare across South Africa. It’s a source of great hope for young people and patients. “It’s a real spring.”
4. The Inclusive Technology Award

PRAEKELT FOUNDATION
Johannesburg

The health innovator
Gustav Praekelt

The innovation
The Praekelt Foundation is a non-profit organisation that turns mobile phones into health tools. It focuses on using mobile services, portals, social networks and applications to fight poverty and improve health and wellbeing.

The action
In the late 1990s, Gustav Praekelt – a computer technologist specialising in website development and motion-capture video – was wandering around Dar es Salaam when he noticed two things. One: everybody had a mobile phone. And two: hardly anyone was using them to talk.

If the First Wave of the Cellular Revolution was the arrival of mobile phones on the market, this was the beginning of the Second Wave: using the devices for short messaging and instant access to information. Combine the messaging and informing functions and you have a tool that could change people’s behaviour and lives. These are bold, far-reaching ideals, but they begin with a simple premise: ubiquity. Cellphones are everywhere.

“A phone is a personal, individual device, but it also connects people,” says Praekelt, who started the Foundation in 2007. “If you put the right kind of content on it, you can really make a difference.”

The first proof of concept was a service called TxtAlert, which sends SMSes on the market, this was the beginning of the Second Wave: using the devices for short messaging and instant access to information. Combine the messaging and informing functions and you have a tool that could change people’s behaviour and lives. These are bold, far-reaching ideals, but they begin with a simple premise: ubiquity. Cellphones are everywhere.

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“The service has been well accepted,” says Praekelt. “Mothers report feeling informed, validated and empowered, and have changed their behaviour as a result of mobile messaging.”

Then there’s YoungAfriLife, a mobile social network developed in partnership with Vodacom South Africa in a bid to combat HIV/AIDS. Targeting young people, the focus is on love, sex and healthy relationships, with lifestyle and celebrity articles, blogs and social chats hosted by the young people themselves.

Inclusive, easy to use, and affordable, the Praekelt Foundation’s initiatives are proof that mobile technology can make the connections that have the power to change behaviours and lives. “Mobile has become the primary means by which people want to access information,” says Praekelt. “But you need to begin by looking at real-world problems, and asking how you can use mobile to solve them. You need to ask people, ‘How can we make your life easier or better?’ People will only change their behaviour if they’re informed, validated and empowered.”

The lesson learned
Look for African solutions to African problems. The sophistication of modern technology can sometimes blind the innovator to the simplest, best and most appropriate solutions. You don’t need the latest smartphone to send a Please Call Me or receive an SMS.

5. The Pioneering Approaches Award

KHETH’IMPOLO

Profile written by Mark van Dijk

The health innovator
Dr Ashraf Grimwood, Kheth’Impilo CEO

The innovation
Kheth’Impilo means “Choose Life” in the Nguni languages. This not-for-profit organisation is questing for an AIDS-free generation in our time. How? By using a unique model of patient advocacy with training and monitoring for community healthcare workers.

The action
Dr Ashraf Grimwood has been a frontline warrior against HIV/AIDS since the late 1990s, when he worked with Aboriginal communities in Australia.

It’s a war that won’t easily be won – in South Africa alone, more than six million people are living with HIV. But the country has come a long way since the days of AIDS denialism, and antiretroviral treatment now allows many to lead healthy lives. Dr Grimwood has also seen a dynamic shift in the way people cope with the diagnosis and management of the condition.

“We want to see an AIDS-free generation in our time,” he says. “The overall goal is complete virological suppression. That means people have to be treated, they have to stay on treatment and we have to have continuous monitoring of their viral count.”

The scale of the AIDS pandemic, along with the increasing risk of TB co-infection, puts a heavy burden on public-system healthcare professionals, potentially compromising access to prevention, treatment and support.

But Kheth’Impilo is helping to fill the gap, by providing specialised education on HIV and TB management for clinical staff, and by training, mentoring and deploying “cadres” of healthcare workers within affected communities.

The lesson learned
Don’t neglect your own health and wellness in the quest to improve the wellbeing of others. Innovation in healthcare depends on people who are fit and healthy enough to take on the magnitude of the task.
Africa loses US$148 billion to corruption every year, money that could be better spent on critical healthcare or improving education.

“The People’s Assembly website focuses on MP accountability — something that has gone largely unmonitored for the last 20 years.”

— Gaile Fullard, Executive Director, Parliamentary Monitoring Group

More empowered communities

Technology also has the power to amplify the voices of marginalised communities who are otherwise offline. When poor mining practices led to lead poisoning in the Bagega community in northern Nigeria, thousands of children were suffering from serious and sometimes fatal conditions. The government had allocated funds for their healthcare, but these hadn’t reached the community in need.

“The People’s Assembly is a powerful medium with a lot of potential to contribute towards social change. However, there is much to be done to ensure local ownership and maximise impact.”

— Gaile Fullard, PMG’s Executive Director, Parliamentary Monitoring Group

Using tech to hold governments to account.

All across Africa, social entrepreneurs are using mobile and web-based technology to hold government to account and demand the changes they need. It’s a powerful medium with a lot of potential to contribute towards social change. However, there is much to be done to ensure local ownership and maximise impact.

By Dr Loren Treisman

Using tech to hold governments to account.

Across Africa, an increasingly educated and tech-savvy citizenry has long been waiting to have its collective voice heard. Hundreds of millions of people on the continent now have access to mobile phones, and this increased connectivity allows them to access critical information about their elected representatives and the laws that govern them. They can use it to report challenges in service delivery, corruption or human rights violations. They can also use it to amplify the voices of marginalised communities, enabling them to speak up and demand something better.

Africa loses US$148 billion to corruption every year, money that could be better spent on critical healthcare or improving education. But, while technology is not a panacea to all social problems, it does have the potential to reach people at a scale and cost never before possible. With greater access to information, citizens should be able to make more informed decisions about issues that affect them. Technology can also support them in mobilising effectively and amplifying their message to stimulate social change.

More participatory democracies

Despite the recent elections in South Africa, an online poll undertaken by the Parliamentary Monitoring Group showed that over 80% of respondents did not know where their local constituency office was located. MPs do not appear to report on constituency work and on top of that, nobody checks up on them. This is clearly problematic. For an effective democracy, there needs to be increased participation. In partnership with mySociety, a UK-based NPO that makes online tools to empower people, Parliamentary Monitoring Group (PMG) has recently launched the People’s Assembly (www.pa.org.za).

The site’s RepLocator (like a store locator) allows visitors to type in their address and find out who their MP/MPL is and where their constituency office is physically located. The website also allows users to track parliamentary proceedings, committees and their elected representatives at national and provincial levels. They can engage in campaigns and access information on how to participate in elections and petitions.

Gaile Fullard, PMG’s Executive Director, explains why the People’s Assembly is so important: “The website focuses on MP accountability — something that has gone largely unmonitored for the last 20 years. It gives answers to questions like, ‘What has an MP commented on over the past five years?’, ‘What is their attendance like?’, ‘Is their constituency office operating?’ While proportional representation allows more opposition parties to exist, it also distances people from their representative. We need to put MP accountability in the spotlight.”

The Open Democracy Advice Centre (www.opendemocracy.net) is also partnering with mySociety to build a site for citizens, journalists and activists to track freedom of information requests to government.

In Nigeria, citizens are beginning to demand answers about how their government is spending public funds. Local start-up BudgIT has created simple infographics to help people understand the country’s budget allocations (www.yourbudgit.com). The site is more than just informative — when violent protests erupted in Nigeria over fuel subsidies payments, the team developed an infographic that helped stimulate more informed debate on social media and contributed towards restoring order in the end.

There is clearly a thirst for information in governance in Nigeria. Pledge51 has developed a Nigerian constitution app that’s already been downloaded more than 800,000 times. Downloads peaked during the protests, when citizens were naturally more interested in upholding their rights.

So Nigerian NGO, CODE, launched the “Follow The Money” campaign (http://followthemoneyng.org). They collected photographic evidence and testimonies from the affected community and combined this with an infographic showing the government’s commitments. In partnership with global NGOs, they created a targeted Twitter-storm and within 48 hours, the government had committed to releasing US$3.3 million to Bagega.

“Using tech to hold governments to account.”

#PeoplePower
More mobilisation, more impact

Never before have citizens had so many channels through which to ask questions and voice concerns. In northern Uganda, the Lord’s Resistance Army’s brutal conflict displaced thousands of people, leaving infrastructure in shambles. Yes, a Peace, Recovery and Development Plan was developed, but there has been limited progress on the ground – corruption is commonplace, health centers are scarce, equipment is lacking, and data is unreliable. Here, the Women of Uganda Network (WOUGNET) (http://wougnet.org) has established voluntary social accountability committees, comprising local officials and community members. They have been trained in the use of SMS or online platform to report on poor governance and corrupt practices – with real impact as a result.

This platform alerted the organisation when a woman in labour was in urgent need of transportation to hospital, but by the time she arrived at the hospital, her baby had already been delivered. The platform also strengthened community mobilisation around the issue.

Building the local ecosystem

Home-grown solutions often work best. They’re better tailored to the local context and are more likely to sustain themselves in the long term. That’s why building a strong tech ecosystem and human capacity locally is more likely to lead to long-lasting success. This approach is also often more cost-effective and helps bolster the local economy.

But the communities working in this space are nascent, and few of these projects are yet to reach scale. In order for this sector to achieve its aims, there is a clear need for social tech communities developed in-country.

Enter the technology innovation hubs. By providing state-of-the-art facilities, events, mentorship, training and – in some instances – incubation programmes, these spaces are bringing the tech community together to collaborate, share ideas and develop projects.

They are springing up across the African continent – from Kigali in Rwanda and KINU in Tanzania to AxisSpaces in Cameroon and Lab Liberia in Monrovia. Some are developing successful projects: BudgIT and the Nigerian Constitution App were both incubated at the Co-Creation Hub (http://cchubnigeria.com), the leading tech innovation hub in Lagos.

But if their impact is going to transform things, hubs still need to optimise the support they provide to social entrepreneurs. They also need to develop effective business models – Co-Creation Hub generated over 50% of its income in the first year.

In building a connected local ecosystem, links to activists and civil society organisations and other stakeholders who understand the process of social change are also key. There are as many fantastic organisations and networks, all of which are committed to mobilising citizens to demand better. Through engaging with the tech community, they can work together to solve social challenges more effectively.

I hope that this approach will move us towards a world in which citizens have access to the information, tools and networks they need to stand up, speak out and actively contribute to improving their own lives and those of their communities.

We often see the best projects arising when people are empowered to innovate to solve their own community needs.

Home-growing solutions

Loren’s thoughts on working from the inside out – when you come from outside the community (or even the country).

Indigo Trust is a UK-based foundation. But we believe that the best solutions to Africa’s challenges will be devised by citizens of Africa itself. Local communities have a deeper understanding of context and cultural nuances. They are best-equipped to negotiate the legal framework and have greater insight into the everyday challenges people face. They’re also best-placed to network with stakeholders like civil society organisations, government and international donors who often see the best projects arising when people are empowered to innovate to solve their own community needs.

This can be supported by encouraging good connections between the technology community, civil society, government and end-users. International funders can play a role and contribute to this “big picture” by capturing learning, sharing best practice and linking up compatible organisations across the African continent.

Also, at times, there is a role for adapting platforms or approaches that have been successful in other countries to the local context. We think this is most effective when strong partnerships are formed with organisations based in Africa, who eventually take ownership of the solution. This way, the tools and available can be shared while ensuring that the project is well-rooted in the local context.

A great example of this is mySociety (www.mysociety.org), who have developed some of the UK’s leading democracy sites. One of these, called TheyWorkForYou (www.theyworkforyou.com), allows users to follow parliamentary proceedings and track MPs and their contributions in parliament. It’s been designed with the local people in mind to create similar sites across Africa – Okoora (developed by the African Centre for Citizenship and Community Development in Ogun) and BudgIT (www.budgIT.org) in Nigeria. It took 48 hours.

A targeted Twitter-storm (#SaveBagega) was a key part of a campaign to get USD1.4 million of government funding allocated to combat lead poisoning due to poor mining practices in Bagega, Nigeria. It took 4 hours.

The Indigo Trust is actively seeking applications from small Africa-based organisations who are looking to further social change. For more information, email loren.romain@idf.org.uk.
Three innovopinions

One is a pharmaceutical correspondent at the Financial Times in London, another is senior lecturer at the MIT Sloan School of Management, and the third is Director at the City of Cape Town for World Design Capital 2014. These are their thoughts on healthcare innovation...

Reverse innovation is: “developing ideas in an emerging market and coaxing them to flow uphill to western markets.”

– Vijay Govindarajan, Professor of International Business at Tuck School of Business, Dartmouth College, and co-author of Reverse Innovation: Create Far From Home.

### 1. Africa’s inherent innovative potential

By Andrew Jack

South Africa may be better-known for the export of diamonds, safaris and the fast-food chain Nando’s, but it’s also the source of a pioneering model of health insurance that’s taking hold around the world.

Vitality, part of the Discovery Health group, has recruited millions of clients in the UK, the US and more recently in Asia, offering incentives linked to healthy lifestyles, including reduced gym subscriptions and vouchers for healthy food for those who attend check-ups and undertake exercise.

It is one example of the growing trend of “reverse innovation” from emerging economies, including countries in Africa, where spiralling demand for healthcare and the absence of solid funding or strong existing systems are sparking a range of new approaches with potential to be applied elsewhere.

Africa has already demonstrated its capacity to leapfrog older “legacy” approaches in order to innovate. Mobile-phone technology has been able to turn the continent’s lag in fixed-line infrastructure into an advantage, paving the way for Kenya’s pioneering M-Pesa banking system, now spreading to many other countries.

In healthcare, the continent has proved to be an important ground for experimentation, in part reflecting its role on the “frontline” of many infectious diseases. In the 1980s, Tanzania was the testing ground for Karel Styblo’s development of DOTS (Directly Observed Treatment Short-course), now the standard global approach for treating tuberculosis which has been since been applied from New York to New Delhi.

Today, organic chemistry professor Kelly Chibale is leading the development of an experimental, new malaria treatment at the University of Cape Town. This could form part of a single-dose cure for the parasite and help prevent its transmission between humans.

Aspen, based in Durban, has taken its model of low-cost, high-quality generic medicines from the region and is expanding it around the world, buying up products and moving into markets that are traditionally dominated by western multinational pharmaceutical groups.

Similarly, rising demand from lower-income countries is forcing multinationals to explore more relevant, affordable, robust and simple-to-use products with ultimately global relevance. As GE Healthcare found with low-cost electrocardiogram and ultrasound machines originally developed for India and China, there was also appetite in richer countries after the 2008 downturn.

For now, the reality is that there is much more innovation in healthcare commodities – from drugs and diagnostics to medical devices – than there is with human interventions and the broader systems required to enhance prevention, treatment and care. Overall, in the absence of greater and smarter investment, and against a backdrop of poverty and inequality, African healthcare outcomes remain poor.

There is a welcome growth in conferences and competitions around innovation. But strip away the goodwill and the handful of “usual suspects”, and there’s still far more aspiration than there are proven, replicable projects. There is also too often a focus on showcasing ideas seeking “users”, rather than developing mechanisms to identify local needs and then canvass the global community for useful solutions.

As the burden of chronic disease grows, the greatest demand in healthcare will be for more effective ways to change human behaviour, whether it’s through incentives, such as conditional cash payments, or “task shifting” away from the small number with advanced medical qualifications to local staff and volunteers. For that, Africa has both pressing need and great potential to innovate.
2. Make frontline innovation visible and change the system from the inside out

By Anjali Sastry

Across the planet, every day, nurses, doctors and their colleagues wrestle with the challenge of delivering healthcare to those who most need it. Many agree that to enable improvement, we need to learn what works and support innovation.

There’s wide consensus that management and business tools could help. Organizations in low-resource settings could benefit from practical assistance in marketing, operations, change-management, design, technology use, finance, strategy and systems. My own experience bears this out.

Dozens of improvement projects that my collaborators and I conducted in Africa and Asia via MIT Sloan School of Management’s GlobalHealth lab, reveal that the right management approaches can improve efficiency and effectiveness of clinics, hospitals and programmes that serve the poor.

But my field experience reveals more than gaps in providers’ management tools. Collaborating closely with frontline workers has taught me much about the work of healthcare innovation. I’ve learned that frontline workers make flawed healthcare systems work for patients by improvising practical new solutions. But because this work is undervalued, we fail to understand – and to harness – all that could enable or stymie needed change.

So, with an eye to enabling us to better appreciate both needs and opportunities in frontline innovation, I’d like to share my inventory of some of the everyday invisible work involved in serving the neediest:

- Devising creative ways to address patient needs, including leveraging or repurposing existing services or infrastructure
- Finding and using information about patients and the community, including non-medical aspects, to enable better care
- Gathering data from the organisation’s daily operations to find opportunities for improvement or to make the case for change
- Designing new materials, systems, processes, and flows for patients or staff, to better manage care and operations
- Fixing things that aren’t working and crafting work-arounds for broken or missing inputs
- Building internal coalitions and momentum to enable change or improvement
- Advocating for missing resources
- Organising, rationalising and managing physical and electronic spaces
- Building supportive external relationships

“If much of the work that people do to make the system better goes unrecognised, are we asking for healthcare innovation, yet failing to appreciate and support what people are already doing?”

- Anjali is a senior lecturer at the MIT Sloan School of Management and the Director of the Groundwork Initiative and GlobalHealth Lab.

- Learning from colleagues who are tackling similar challenges elsewhere
- Teaching others and sharing what has been learned
- If much of the work that people do to make the system better goes unrecognised, then efforts to improve performance are inherently invisible and inevitably underused. Are we asking for healthcare innovation, yet failing to appreciate and support what people are already doing? Are we wasting the virtues of new devices, drugs and software at the cost of overlooking every other aspect of healthcare delivery innovation?
- I’ve been thinking about what it would mean to take seriously the invisible, innovative work of healthcare delivery. We’d build novel two-way collaborations with frontline workers. We’d commit resources to documenting and examining what works. More prospectively designed research is needed, for sure, but we need to first find and invent the new ideas. Let’s harness action research, collaborative action learning, natural experiments, case studies, ethnography and more.
- Videographers, journalists, writers and masters of social media could make valuable and enriching contributions to the documentation. Systems thinkers and policy visionaries could add needed contextualisation and analysis to ensure that new ideas are aligned with health and development goals.
- The resulting recognition of frontline workers’ efforts could help shore up their motivation and engagement. Acknowledging local innovations could encourage new leaders and change agents to emerge.
- But this new movement could do much more. It could also equip innovators – leaders, administrators, reception staff, aides, physicians – to define and label the practices they co-develop or discover. Academics, educators and professional experts could help establish results, then connect high-impact innovations to existing knowledge, management training and communities of practice. This could also allow innovators to find their own improvements in a broader set of professional frameworks and methods. Innovators could tap into others’ experience and know-how, contribute to shared knowledge and help advance techniques across domains and settings.

Over the years, professional practice in software development, manufacturing and clinical care benefited from such advancement. Imagine the gains if we could do the same. Frontline healthcare workers’ innovations could be codified, disseminated and improved upon, and we could finally follow our own advice by learning from each other and facilitating innovation that is grounded in frontline realities.

3. The role of service-design in healthcare transformation

By Richard Perez

The public sector, specifically the healthcare sector, is populated with many a wicked problem. The systems that embody these sectors exhibit complex, dynamic and ambiguous characteristics. Improving or changing them requires a tool that embraces these characteristics head-on, yet at the same time is able to deliver better efficiency, user value and innovation.

The process of design thinking embraces such complexity. Belying predominantly an abductive logic, it embodies three main activities: creative thinking, user-centrity and collaboration.

1. In the creative-thinking processes, new ideas are generated. These processes offer a place of exploration, a place of safety that fosters experimentation and discovery. Creative thinking is a reflective process that builds on lessons learnt from earlier work, from a success and failure perspective.

2. The principle of user-centrity puts the user at the core of the thinking process. It identifies the empathetic values of the humans in the systems, the critical stakeholders who, without the system, would cease to exist.

3. Finally, collaboration encourages diversity in the process, sweeping in different perspectives and world views to ensure solutions are balanced.
Not a magic pill, but a process

Making a social innovation work is not simple. But when it does, it might be tempting to believe you can just duplicate the process again and again and it will keep working. But it’s not that simple. Let’s look at the reality of scaling, and some crucial questions you need to ask before trying.

By Marcus Coetzee

Social innovation (SI) is taking up a lot more space than it used to. Governments are designing SI strategies. Businesses are turning their skills towards social problems. Non-profits are honing and growing exciting projects. Universities are studying and teaching SI methods and trends.

Around the world, SI is a familiar part of everyday life. Locally we see clinics working with primary healthcare organisations to provide home-based care and community leaders meeting with police to discuss safety in Community Policing Forums (CPF). Schools, clinics and organisations are establishing food gardens to teach skills, provide livelihoods and build community pride.

The sheer ubiquity of SI can give the impression that these innovations are a magic pill solution can then quickly be piloted and proven to effective. This magic-pill solution can then quickly be piloted and proven to effective.

But this is not the case. Every successful innovation started as an idea that was piloted and refined before being scaled (expanded beyond the initial prototype to increase social impact). And this is the complicated part. We need to understand scaling better in order to do it better.

FACT: Social innovation is not a magic pill.

It’s more like a multi-layered process, probably involving much thinking, testing, working overtime and muddling through publics, inefficiencies and other complexities along the way.

The truth is, with insufficient planning or within an ineffective organisation, even a great innovation can fail to scale. Information on this subject is still sparse – more attention is often given to social innovators, the innovations themselves and how they were conceived. So, although optimism should be encouraged, it needs to be tempered with an awareness of the challenges scaling can involve. This starts with a reality check (see table above).

FACT: Scaling is not simple.

Although scaling social impact is almost always the ultimate aim, unfortunately far more innovators tend to fail than succeed. That’s why those studying SI should pay as much attention to innovations that have failed as they do to those that have scaled with success.

Clearly, something in the process needs to be assessed and addressed. There are many approaches to scaling that make use of various partners and tools. Let’s look at four popular methods, and South African examples showing each one at work...

**Social Innovation:**

1. Social innovation can be seen as an identification of a solution to a social problem, through some clear thinking, discussion, debate and desk research.
2. This magic pill solution can then quickly be piloted and proven to effective.
3. The media will recognise its value and start promoting it.
4. Investors and donors will hear about it and quickly decide to support it because it works.
5. The social innovation can be cut-and-pasted elsewhere with success and little resistance.
6. It works successfully and solves problems everywhere else too.
7. Any implementing organisation involved runs effectively, no political resistance is encountered, no cultural or regional differences harder the pill’s effect.
8. It must be magic!

**Reality:**

1. Social innovators spend years studying a problem and the factors perpetuating it.
2. They work with experienced practitioners in the field and from different disciplines.
3. A social innovation is collaboratively designed, then piloted and revisited in an iterative process.
4. After much effort and time, a funder is found who will back the innovation, but usually on a much smaller scale than anticipated.
5. Despite early successes, scaling is more difficult than planned.
6. Implementing organisations might have internal issues – such as a change of leadership – that undermines performance. Various stakeholders, including beneficiaries, might also sabotage the innovation.
7. Eventually, some traction and social value is achieved, but only after many compromises.
8. It’s a lot of hard work!

**Perception**

**Reality**

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<th>Process</th>
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**A South African example**

**1. Using technology to expand impact**

Trade Mark is a small and growing Cape Town enterprise that uses technology to help create employment for township artisans.

- First, they recruit and screen township painters, carpenters, painters and other trade-experienced men and women, not skilled labourers.
- Trade Mark then uses its website and social media channels to market their services to potential clients, such as small businesses and suburban households.
- Clients can book or arrange quotes online. Soon they will also be able to view trademen’s profiles and ratings.
- On completion, the client pays the artisan directly and can rate the service online – a good incentive to deliver professional quality.
- The Industrial Development Corporation recently invested R2.5 million in Trade Mark for scaling its operations.

**THE LESSON:** Founder Joshua Cox says the challenge in using technology to scale an innovation is balancing the technical side with a much-needed “human touch”.

**2. Integrating innovation into government policy**

The Isibindi Model was designed and piloted by the National Association of Child Care Workers (NACCW) in the early 2000s. It was created to complement the struggling foster-care system, which was faced with growing numbers of AIDS orphans.

- It’s a social franchise that uses trained community workers to support orphan-headed households and keep families together in their communities and homes.
- It relies on structured partnerships between provincial government, an umbrella non-profit organisation, a funder and the NACCW.
- The rollout has now been integrated into government policy. Called the Minister’s Plan, it is a part of the Department of Social Development’s strategy.

**THE LESSON:** Effective partnership and policy integration is making Isibindi one of the largest public works programmes in South Africa. Currently, 10 000 workers are being trained and deployed to 260 sites.

**3. Distributing a physical product**

Reel Gardening is a social franchise with a product concept that has won a number of social innovation awards.

- When founder Claire Reid was still at school, she designed a method to use its method, manuals and assessment tools.
- It relies on structured partnerships between provincial government, an umbrella non-profit organisation, a funder and the NACCW.
- The rollout has now been integrated into government policy. Called the Minister’s Plan, it is a part of the Department of Social Development’s strategy.

**THE LESSON:** The more the product is used and sold, the greater its impact. But in addition, Real Gardening has established a non-profit entity to work with community food gardens throughout South Africa.

**4. Franchising an organisational model**

Shine was established in 2000 to improve reading skills among South African Grade 2s and 3s – a pressing need, given that less than one-third of Grade 3s score more than 50% on standardised literacy tests.

- It relies on structured partnerships between provincial government, an umbrella non-profit organisation, a funder and the NACCW.
- The rollout has now been integrated into government policy. Called the Minister’s Plan, it is a part of the Department of Social Development’s strategy.

**THE LESSON:** Franchising helped Shine to overcome a number of resource constraints. The model has now been franchised to four organisations, or Shine Chapters.
Six questions to ask before scaling

It would be great if successful social innovations really could be popped like magic pills or copied and pasted around a country or community. But they can’t. The implementation and scaling of a SI needs as much attention as its piloting and design.

Here are some important questions about scaling to consider, particularly where another organisation is needed to implement the SI.

**QUESTION 1**

Is the innovator prepared to scale?

I’ve encountered numerous innovators who are more comfortable with the pilot or prototype phase and so, aren’t prepared for the changes scaling can bring – such as sharing ownership of the intellectual property or company to raise finance, entering partnerships that feel “intimidating”, or simply accepting that the initiative will become larger, more complex and therefore more challenging. Often most frightening for innovators is the possibility that they don’t have the skills to lead the project to maturity and may need to surrender control and rely on others to help scale.

Sometimes an innovator may choose to partially scale an innovation to retain focus and control. Ubuntu Education Fund was established in 1999 in response to the education crisis in Port Elizabeth. To increase impact, Ubuntu chose to stay within the area but expand its services to include household stability and building and educational materials. The innovation franchised easily in Brazil and looked like it would work in South Africa – it was also hoped that micro-factories there would employ former prisoners and help reintegrate them into society. In 2006 a pilot plant in Johannesburg tested the concept using clean recycled waste and found that only enough post-consumer waste to support one factory. Fortunately this was discovered early so only one factory was established and it was housed in an existing plastics factory, rather than franchised.

The message? Do proper market research before scaling. Also, remember that not all social innovations should be scaled. Some will only work in one context and that is also fine. What’s important is that it’s making a difference to the planet or to people’s lives.

**QUESTION 2**

Is the social innovation actually scalable?

Innovations are frequently developed for a particular country, community or social problem. While some have then been adapted to serve other contexts, many don’t fit the new space with as much success.

Packaging company Tetra Pak developed a plastic recycling franchise in Brazil, where small factories recycle their post-consumer waste into recycling and building materials. The innovation franchised easily in Brazil and looked like it would work in South Africa – it was also hoped that micro-factories there would employ former prisoners and help reintegrate them into society. In 2006 a pilot plant in Johannesburg tested the concept using clean recycled industrial waste and everything seemed set to scale. But during the business-planning process, it was found that, due to South Africans’ poor recycling habits, there was only enough post-consumer waste to support one factory. Fortunately this was discovered early so only one factory was established and it was housed in an existing plastics factory, rather than franchised.

**QUESTION 3**

How will agendas and political dynamics be managed?

I’ve seen cases where recipients refused to “accept” an SI, even though it was free and clearly had benefits. Beneficiaries may feel the “cost” of adoption or shifting outside a comfort zone is too high. They may also feel that they weren’t part of the process. That’s why it’s crucial to involve the target audience in design, piloting and marketing. They need to feel they “own” the innovation.

Too many innovations also suffer due to political interference. Consider Shout-It-Now, a youth HIV/AIDS-awareness organisation established in 2007. Their programme placed young people in front of computers to learn about HIV/ AIDS from celebrities and then complete a risk profile. This was followed by an HIV testing and counselling process. By 2010, almost 50 000 young people had gone through the school programme and it was set to scale. Then came a cease-and-desist letter from the government, unhappy that children were receiving sex education from an external organisation outside of the curriculum. After that, international donors threatened to withdraw funding in order to keep the South African government happy and Shout-It-Now’s plan to scale through schools was undermined by both political and financial dynamics.

Fortunately, the organisation adapted its model to focus on communities and primary healthcare counselling and testing. Over 300 000 people have been through its programmes since.

**QUESTION 4**

Who will be responsible for scaling the innovation?

Often, another organisation or service is needed to scale an SI. This is challenging because the effectiveness of both parties is tied to the eventual success. For instance, if the innovation is a change in government policy, impact relies on both the nonprofit organisation advocating the change and the government department responsible for implementing it.

Successful social enterprise Shonaquip designs, manufactures and distributes mobility equipment (wheelchairs and posture-support devices) and uses sales to cover operating costs and subsidise training and advocacy. The devices are designed to be produced and repaired locally, and survive in rural conditions. They’ve won numerous awards for their child-centred approach – the Madiba2Go buggy highlights the child, not the wheelchair, and helps kids participate more in social interactions and feel less excluded.

But the social impact of this great organisation and its products is still reliant on production, distribution and marketing capabilities, and these have taken 30 years and many late nights to cultivate.

Clearly, the capacity of an organisation or service that will be used for scaling needs to be addressed as a potential limiting factor. Unfortunately, too many great innovations are housed in or dependent on poorly run organisations. While a capable organisation with a competent leadership, focused strategy and enabling culture can uplift an innovation, an incompetent organisation can kill it.

**QUESTION 5**

How will the scaling be financed?

Growth calls for resources and there are five main options worth considering:

1. **NO FINANCE REQUIRED.** The innovation could simply be an idea, such as the Street Committee Meeting (a regular meeting that occurs in townships throughout South Africa, which arose during the anti-Apartheid struggle), and in these cases, they can be scaled without funding, simply by word-of-mouth.

2. **LOANS.** If the innovation is able to generate profits, then social investors may be persuaded to invest in the enterprise in order to get both a social and financial return. Trade-Mark (cited earlier) recently received a loan from the IDC in order to scale.

3. **DONATIONS.** The “Vula” Eye Health Mobile Phone App received a $1 million donation from the SAB Foundation after winning its 2013 Social Innovation Awards. This app will enable a cellphone or tablet to do some basic eye-health screening. While it could be scaled through sales, I believe it makes sense for it to be funded through donations (as it will be), enabling free downloading and increased adoption.

4. **SALES.** This is income-generation as per a traditional social enterprise model – both Reel Gardening and Shonaquip sell their products to cover operating costs and subsidise other philanthropic work.

5. **INVESTMENT.** If the innovation is housed in a privately owned enterprise, then social investors may choose to purchase equity and fund the upsaling of the innovation in return for a share of profits.

**QUESTION 6**

How will quality be assured?

This is a common issue, particularly when the innovator needs another organisation to help scale the SI. Quality control is crucial to protecting the innovation’s integrity and “brand”. Both Shine and the NACCW’s Isibindi Model (see table, page 25) franchised their models and surrendered control of implementation to overcome resource constraints and increase impact. But they kept firm control over quality and intellectual property. They also provide training and mentoring to maintain implementation as intended.

Another example, Gold Peer Education, collaborated with partners in the early- and mid-2000s to design a peer-education model for South African schools. At its peak, the social franchise worked with approximately 15 organisations and 6 000 “peer educators”, who counselled fellow students on responsible sexual behaviour. Yes, although they relied on other nonprofits to help implement the innovation, Gold still maintained strict controls over the quality, even requiring monthly statistics to be submitted.

The world’s first Social Franchise Accelerator

The capabilities needed to design a social innovation are different from those required to scale it. That’s why the “magic pill” approach doesn’t work and many social innovators need specialised scaling support.

That’s one of the reasons for the recent launch of the world’s first Social Franchise Accelerator by the Bertha Centre, in partnership with the International Centre for Social Franchising (ICSF) and Franchising Plus, funded by the Rockefeller Foundation.

The initiative aims to meet the needs of underserved people across South Africa by helping socially impactful organisations to franchise their work. The goal for the first year? To work with three pilot organisations, creating sustainable social franchises and launching pilot franchises in three new locations for each organisation. Read more about it in the next issue of InsideOut, coming mid-year.

For more info, email Khathikwane Cole: khathikwane.cole@gph.uct.ac.za
Much has been written about the growth of cellular handset ownership in Africa. It started with wild enthusiasm about development opportunities and access to information, but then it changed to despair over what was seen as a new form of digital colonialism.

Whatever your views, there’s no escaping Kranzberg’s maxim: “Technology is neither good nor bad, but nor is it neutral.” So, if technology is to have an effect, the key questions are:

1. Who gets to decide upon that effect?
2. How do we create technology to have the effect we desire?

Our research group at the UCT Centre in ICT for Development is all about creating technology specifically for the developing world. Based primarily in the Computer Science Department, we work with academics across the university to create relevant mobile technologies.

How do we decide what to create? And then how do we create them?

Turns out these questions are closely intertwined.

The guiding philosophy of our group is User Centred Design. We work alongside communities, placing their needs at the centre of the design process. We follow an iterative method (akin to Action Research) of observing users, sketching designs with them and re-evaluating until we have something they are happy with and we can implement. We then create that technology, deploy it in the community and evaluate its impact. This we keep iterating until we’ve developed a viable solution.

By following User Centred Design, we answer the first question, above: by empowering the community to create the technology they deem fit. No external technology is forced upon them by our research agenda, by well-meaning but misguided philanthropy, or by profit-driven desires of technology companies.

But the challenge is ensuring that the community members can express their views clearly. Many people we work with have no concept of technology (such as the difference between hardware and software), have visual and textual literacies widely different from our own and have different metrics for what constitutes successful technology.

Our research contribution has, therefore, not been about the technology we create, but more about how we effectively engage users in a design process in which their desires can be heard. In this way, we’ve trained community healthcare workers and created things like solar power-education devices, mobile software for remote diagnosis, culture preservation software and more.

We try to refine our methods to create technology that meets the needs of our users more quickly and accurately. We also hope to move from co-design to co-creation, giving communities skills to create technology for themselves. This may seem fanciful, but initiatives in end-user technology creation, such as Arduino, Scratch and littleBits, are starting to democratise the creation process.

Our work will be done when we can give communities the tools to run these iterative design processes for themselves, and turn those designs into functioning pieces of technology.

Democratising mobile technology through design

Opinion of Professor Gary Marsden, Department of Computer Science, University of Cape Town

Gary submitted this piece to the Health Innovator’s Review 2014 shortly before leaving this world on 27 December 2013. He inspired us all and will be greatly missed. His work and legacy will live on.
Digital technology is flying into sci-fi-like places. But often, the innovations developed are inaccessible and unaffordable and therefore out of reach for the 84% of South Africans who rely on public healthcare. Not these ones.

By Mark van Dijk

**On your marks, tech set, go**

The solution.

**The TENDAI PROJECT uses trained Community Health Workers using mobile phones to collect data on the availability of medicines in South Africa, Lesotho, Zimbabwe, Mozambique, Malawi, Zambia, Namibia, Botswana, Swaziland, Angola and Tanzania. SARPM uses customised, opensource survey software to coordinate this data. It is then shared via mobile on the Medicines In situ Hub, social networks and mailing lists. This helps identify problems, monitor interventions and promote advocacy.**

http://tendi.healthinnovateshub.net

Hello Doctor

The need.

More and more people in Africa can now access the internet on their mobile phones. But when it comes to healthcare, it’s more important than ever for users to distinguish between false and trustworthy information.

The solution.

**HELLO DOCTOR is a platform that connects medical doctors to individuals. Users can personal advice from a doctor via websites, mobile apps, radio, television and a call centre of registered doctors. Users can also view free, searchable health-and-lifestyle information, which is moderated by doctors. Access to doctors for personalised and confidential advice is on a subscription basis, from R5 per day to text a doctor of a question to R55 per month for a family membership, with unlimited text access to a doctor.**

www.helldoctor.co.za

**New opportunities in e-learning**

Opinion of Professor Wim de Villiers, Dean of the Faculty of Health Sciences, University of Cape Town

For every 20 people in South Africa, there are 13 mobile phones. That’s according to a new report published by the GSMA, the body that represents the world’s mobile operators. That 63.7% penetration rate – the highest in Africa – brings a massive potential for information technology and telecommunications... and health innovation.

Professor Wim de Villiers believes that mobile technology is turning the healthcare industry on its head: “It’s a disruptive innovation. The goal is to deliver better care, more efficiently, and I think this is the way to get there.”

De Villiers recently returned from the US, where, he says, “innovation is front and centre.” Based on the trends he saw there, he has identified several opportunities in the field of e-learning.

He points to the example of MOOCs, Massive Open Online Courses, where a learner can access a number of ways. “The teaching can be aimed at various levels, from basic to more sophisticated education,” he says. “On one hand, there’s a formal method of this kind of education, where qualifications or certificates may be gained from association with institutions of higher learning. On the other hand, MOOCs can also be run in a more informal way.”

The explosion of free, high-quality, readily available educational content – from recorded lectures to E0K notes – is revolutionising the way teachers and students interact. It’s also changing the way students choose to learn, bringing it with an entirely new generation of learners plugged in, seasoned on Millennials.

**This generation learns in a different way,” says De Villiers. “And we need to think of similar electronic means. This is especially different ways to impart knowledge to them.**

“Driven by advances in software and by the boom in mobile broadband, device manufacturers are also producing better, faster, cheaper hardware. These affordable, low-cost tablets represent an amazing opportunity for we can innovate, educators and researchers. They take advantage of the device to the buds,” De Villiers explains.

“We’re seeing it here at UCT, with some pilot projects where we provide tablets to students. I think, in the near future, these tablets will be required or included in the fee structure for students. I think, increasingly, this is going to be a way in which we educate healthcare workers. A lot of learning can occur this way, and it’s viable throughout Africa.”

**The Southern African Regional Programme on Access to Medicines (SARPM)**

The need.

Too many people in southern Africa suffer from disease without medical relief. Inefficient procurement and supply systems, weak regulatory and quality-assurance mechanisms and high medicine costs continue to hamper access to essential, quality medicines.

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**Mobotenzi**

**The Mxit Reach Trust**

Babyinfo

The need.

The infant mortality rate in South Africa is 43 deaths per 1,000 live births – 10 times more than in developed countries. There’s also poor access to good health information, and low awareness of the importance of antenatal care.

The solution.

**BABYINFO is an application on the Mxit mobile platform, equipping prospective mothers with relevant, high-quality info. Mothers-to-be subscribe to the free service and receive daily educational messages, timed to the stage of their pregnancy. This service enables informed decisions regarding mother and baby’s health. The service also helps ensure that people use the national health infrastructure at the right times.**

http://mxitapp.com/babyinfo

**CELL-LIFE mHealth Solutions**

The need.

South Africa has the largest number of HIV infections in the world, with nearly two million people on antiretroviral treatment. There is a big emphasis on HIV testing, but pre- and post-counselling sessions can be long and arduous. Clinic visits and adherence rates to medication are also sub-optimal.

The solution.

**Cell-Life has developed two mobile services:**

- **iDART**, developed in collaboration with the Desmond Tutu HIV foundation and the Canadian International Development Agency, is an open-source antiretroviral pharmacy management and dispensing system. It includes daily positive-living SMSs and monthly clinic appointment reminders. The system has helped to change patient behaviour, improve drug supply management and reduce waiting times.

- **JUST-TESTED** aims to supplement HIV testing and counselling, by giving support and information to people who have just been tested, whether the result was positive or negative. It consists of free SMSs in Afrikaans, English and isiXhosa. The messages are sent to subscribers over four stages, between false and trustworthy information.

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Happy 20th South Africa.
We’ve had 20 years of democracy, now part of our past.
What do we want to do with the 20, starting today?