Despite the tens of billions spent each year in international aid, some of the most promising and exciting social innovations and businesses have come about by chance. Many of the people behind them did not consciously set out to solve anything, but they did. *Welcome to the world of the reluctant innovator.*

_This important, timely book gives the reader an invaluable insight into the workings of the world of social entrepreneurship. It is a must-read for students, practitioners, policymakers and anyone with a passing interest in how to work for the greater good._

*Professor Klaus Schwab,* Founder of the World Economic Forum and Co-Founder of the Schwab Foundation for Social Entrepreneurship

_This book’s vivid, engaging stories – of ordinary people who have devoted their lives to solving problems and injustices they never expected to encounter – make a major contribution to understanding what social innovation is all about. This is an inspiring and essential read for everyone who cares about our flawed, messy, beautiful world and believes in its myriad possibilities._

*Hannah Bloch,* Mission Projects Editor, *National Geographic* magazine

_‘Ken Banks, whose career has taken him from offshore banking to launching a brilliant communications tool for Africa, takes us on a social innovation journey. We meet ten entrepreneurs who happened on life-changing ideas – from solar lighting for African maternity wards to film subtitles to promote literacy in India – and then fought against every kind of obstacle to make them happen. Inspiring and instructive.’_

*Rory Cellan-Jones,* BBC Technology Correspondent

Ken Banks, founder of kiwanja.net, devotes himself to the application of mobile technology for positive social and environmental change in the developing world. He is a PopTech Fellow, a Tech Awards Laureate, an Ashoka Fellow and a National Geographic Emerging Explorer, and has been internationally recognised for his technology-based work.

_A book of hope, inspiration, and a beacon of what’s possible_

From the foreword by Archbishop Desmond Tutu
'This important, timely book gives the reader an invaluable insight into the workings of the world of social entrepreneurship. It is a must-read for students, practitioners, policy makers and anyone with a passing interest in how to work for the greater good.'

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Rory Cellan-Jones, BBC Technology Correspondent

'Ken Banks offers us inspiration, wisdom and reluctance in just the right measure to help make lasting social innovation a discipline that others can help create and sustain, rather than having it remain an unfulfilled pipe dream.'

Cheryl Heller, Founding Chair, MFA Design for Social Innovation at the School of Visual Arts, New York

'Ken's work has transformed the lives of many people and shown how the appropriate application of technology can change the world for the better. In this important book he has generously brought together tales from other "reluctant entrepreneurs" to show how inspiration and application can begin to address the world's pressing problems. It's a great read, and a vital message.'

Bill Thompson, Writer, broadcaster, commentator for Click (on BBC World Service radio) and Visiting Professor at the Royal College of Art
‘There’s a lot of hyperbole at the intersection of technology and social entrepreneurship, but you won’t find any in here. This important book describes how pressing social problems are being creatively solved with appropriate technology by gifted people. Inspirational stuff!’

**Alex van Someren**, Managing Partner of Early Stage Funds, Amadeus Capital Partners

‘If these ten extraordinary people are defined as reluctant then the world needs more of these Tesla-esque entrepreneurs, thinkers and doers who have engineered similarly game-changing innovations whose impact will be as profound as the enigmatic Nikola. Bravo to their brilliance.’

**Toby Shapshak**, Editor, *Stuff* magazine

‘Many of us are looking for ways to combine our passion and purpose in life and this book provides some great tips. This book is filled with stories that inspire us to remember the road is not always easy and tenacity and time are critical parts of the journey. The great news is that it really is possible to change the world – one marvellous reluctant innovator at a time!’

**Grace Killelea**, Founder and CEO of Half the Sky Leadership Institute and 2011 Multichannel News Wonder Woman

‘This book is a refreshing antidote to pessimism about the potential of individuals influencing “social change”. The author of each chapter has a personal story to tell, but each in such a way that it helps us to better understand the different ways it is possible to make that change happen.’

**Dr Elizabeth Harrison**, Reader in Anthropology and former Head of International Development, University of Sussex

‘What an inspiration! This book is a testament that we can all make a much bigger difference in the world than we ever dreamed possible. It has encouraged me to take bigger and bolder steps in my own foundation, “Together we can Change the World”, and in my business as well. Read it and treat yourself to a new way of thinking.’

**Scott Friedman**, Chief Celebration Officer at Scott Friedman & Associates and author of *Celebrate! Lessons Learned from the World’s Most Admired Organizations*

‘*The Rise of the Reluctant Innovator* tells the poignant stories of entrepreneurs with such perseverance and passion that will be an inspiration to all those hoping to make a difference in the world. And it is an important reminder of the sacrifice that community leaders and development professionals make as they tackle the most pressing problems plaguing the world today.’

**Priya Jaisinghani**, Deputy Director of Innovation and Development Alliances, USAID
'The Rise of the Reluctant Innovator gives an incredibly rare, personal and enlightening account of social entrepreneurs around the world. Their innovations demonstrate how technology can be a potent force for positive change in the world.'

**Katie Jacobs Stanton**, Vice President of International Market Development, Twitter

'A revelatory view of world-changing innovators. Read these pages to find that life-passions are revealed in the most unconventional manner, and discover the path to success consists of battling enormous obstacles.'

**John Siceloff**, Emmy Award Winner and Founder/CEO of CatchTheNext.org

'These real – occasionally raw – stories do more to capture the life of the committed social entrepreneur than anything else I’ve read. Inspiring, yes, but even better, it works as a real world case-based manual for how to create change for the better.'

**Kevin Starr**, Managing Director, Mulago Foundation

'It seems that around the world we are witnessing a new collective consciousness of sorts. There is a heightened awareness of the need to help others. We feel compelled to have a real impact on the "bigger picture" and to do more for the "greater good". Social entrepreneurship is on the rise, and this book shines much needed light on how to transform inspiration into innovation.'

**Darice Fisher**, Public Relations and Media Expert

'Ken Banks is the quintessential explorer, driven by curiosity and purpose, strengthened by obstacles, and culturally mindful. In *The Rise of the Reluctant Innovator*, Ken – a collaborator by nature – has swung the spotlight onto the heroic work of a group of driven individuals who are creating a better future for people and communities around the world. Transcending trendy terms and structured models around social entrepreneurship, Ken's common theme is one of possibility and empowerment – anyone can effect social change. I believe this collection of stories of passion and impact will leave people hungering for more and will inspire more than a few readers to explore their passions and translate them into incremental stories of meaningful change.'

**Alex Moen**, Vice President of Explorer Programs, National Geographic

'*The Rise of the Reluctant Innovator* is required reading for any student or anyone interested in technology-based invention to improve peoples' lives, and social innovation as a potential life path. Its honest stories of unforeseen challenges and unexpected opportunities from the people encountering them both are an inspiration and refreshing reality-check.'

**Joshua Schuler**, Executive Director, Lemelson–MIT Program
'Ken Banks has assembled compelling, insightful first-person accounts from remarkable people pursuing social change through technology. The book will be inspiring and informative to many others on similar paths.'

**Jonathan Donner**, Technology for Emerging Markets Group, Microsoft Research

'Read this book and be inspired. And ask the question it poses: Can I, in however lesser-a-way, also find my passion, become a social entrepreneur and make our world a better place?'

**Robert Chambers**, Research Associate, Institute of Development Studies at the University of Sussex

'As a pioneer in this field Ken knows more than anyone what it is to be a reluctant innovator. This is an inspiring book introducing us to those who have changed their worlds with their simple, elegant ideas.'

**Chris Locke**, Managing Director, GSMA Mobile for Development

'As a social entrepreneur, educator and facilitator I believe these times call for innovation from all points in the spectrum, especially those of us that are unreasonable enough to hope we can make change in the world. Thank you for this book – it is just what the field needs!'

**Rebecca Saltman**, Disruptive Innovator and Educator, A Foot in the Door Productions

'A fascinating and insightful work. This book will serve as a guide and source of inspiration for all who seek to change the world.'

**Terry Garcia**, Executive Vice President of Mission Programs, National Geographic

'Why would anyone trade a life of comfort for the muddy boots of change-making? Ken Banks shows how global challenges trouble the waters of our conscience, and compel a new generation of innovators to action.'

**Andrew Zolli**, Executive Director and Curator, PopTech

'The world's most challenging problems are being taken on by people motivated by their personal passions, informed by their deep understanding of local realities and shaped by their frustration with inadequate solutions. Ken Banks and the other remarkable innovators here offer inspiration and insight into building practical solutions while calling into question established wisdom about social innovation. This is a must-read book for anyone who wants to solve problems with global implications through local knowledge and involvement.'

**Ethan Zuckerman**, Director of the Center for Civic Media, MIT
THE RISE OF THE RELUCTANT INNOVATOR

Edited by
Ken Banks

LONDON PUBLISHING PARTNERSHIP
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For the world to be a better place for everyone, each of us needs to stand up against wrongs, show compassion and humility to others, and not turn our backs when we encounter hardship and suffering. These simple rules have guided me throughout my life, as they do for countless others who fight for the rights of the poor, marginalised and disenfranchised around the world.

That world is a much smaller place than it used to be. Thanks to the spread of the Internet and social media, many of these people's stories are being heard for the first time. Add to that the increasing numbers of young people wanting to make a difference in their lives, and we have all the makings of a positive force for change. It is my belief that it is down to each of us to help galvanise that change, and through his efforts with this book, Ken Banks clearly feels the same.

I had the pleasure of working with Ken during a recent voyage with Semester at Sea. Semester at Sea helps students get a better understanding of our world by giving them the opportunity to spend one
university term out of the classroom travelling the globe aboard a ship, the *MV Explorer*. Ken was on a five-week leg of the same journey, mentoring technology-focused social entrepreneurs with Unreasonable at Sea. Towards the end of his time I had the opportunity to sit with him, and author Tori Hogan, in front of an auditorium full of students to talk frankly about how they can make a difference in the world. Everyone there was hungry for knowledge and opportunity, which I very much hope we gave them. Today’s youth are not only the problem solvers but also the leaders of the future.

It is in that spirit of shared learning that I have pleasure in introducing this exciting new book. *The Rise of the Reluctant Innovator* is a collection of real-life stories that show what’s possible if people are open, take an interest and don’t take the easy option of turning their back, but instead doggedly search for answers to problems affecting not just the people in front of them but, in many cases, tens of millions of other people around the world.

Read this book and you quickly realise that these stories have changed the lives of the innovators themselves as much as the people they set out to help. It is a book of hope, inspiration, and a beacon of what’s possible.

*Archbishop Desmond Tutu*
*Cape Town, South Africa*
INTRODUCTION

Ken Banks

‘Don’t ask yourself what the world needs. Ask yourself what makes you come alive and then go do that. Because what the world needs is people who come alive.’

Howard Thurman (1899–1981)

AN IDEA IS BORN (AGAIN)

This book has the unlikeliest of origins. It all started at 37,000 feet with a chance meeting with David Rowan, editor of Wired magazine’s UK edition, in the aisle of a chartered flight to Johannesburg. It was June 2011. Dozens of journalists milled around, plotting in the back of the plane, with Prime Minister David Cameron and his ministerial colleagues camped up front. We sat in the middle, part of a fifty-strong
British government business delegation set to visit South Africa, Nigeria, Rwanda and South Sudan over four days. We spent more time in the air than we did on the ground, and didn’t even make it to our last two destinations. It turns out that four days, however well planned, is a long time in politics.

A few months after our return, David recounted our high-altitude conversations and decided to get back in touch. He wanted me to write an article for their ‘Ideas Bank’, something that ‘people would want to talk about down the pub’. This somewhat limited my options. I dug deep into my drawer of half-thought-out ideas and dusted one down from several years earlier which sketched out what I’d begun calling ‘reluctant innovation’. Things that people had either fixed or discovered by accident, or reluctantly, struck a chord with the ‘Ideas Bank’ theme and ‘Genius Happens When You Plan Something Else’ appeared in the May 2012 edition of the magazine.

The original article was short, so I was only able to briefly highlight the stories of two innovators. But the seed of an idea was reborn, and the concept of ‘reluctant innovation’ grabbed my imagination once more. I felt there was a much bigger story to tell, and many more reluctant innovators to seek out. Numerous calls for contributors, hundreds of emails, masses of editing and reading, cover and chapter design sessions, failed funding campaigns and eighteen months later, 600 words became 70,000 and the book you are holding in your hands today was born.

The half-baked idea that somehow turned into this book began to emerge several years earlier during my time at Stanford University – a whole story in itself – where I became increasingly exposed to social entrepreneurship, social innovation and design thinking as academic disciplines. I found myself meeting increasing numbers of smart young people looking to colleges and universities to equip them with the skills they felt they needed to ‘go out and change the world’. I was a bit taken aback. You didn’t need qualifications to change the world, did you? Often I’d dig deeper and ask what they wanted to do when they graduated. Answers such as ‘I want to be a social entrepreneur’ perplexed me. Few people I know in the messy, often frustrating world of social entrepreneurship ever set out with the explicit aim of becoming
one. Rather, they stumbled across a problem, a wrong or a market inefficiency which bothered them to such an extent that they decided to dedicate much – if not all – of their lives to putting it right. It was rarely, if ever, part of a wider plan.

Many of the students I met were unlikely to experience that problem, wrong, injustice or market inefficiency within the walls of their college or university. Teaching the mechanics of social innovation may be helpful, yes, but only if matched with passion, and a cause, to which people can apply it. Desperately seeking that one thing that switches you on can be a lonely, difficult journey. I speak from personal experience. But more of that later.

What I was witnessing was the increasing institutionalisation of social entrepreneurship. I thought it unhelpful on many fronts, not to mention that it could easily be seen as a barrier by many motivated young people. Not only that, it implied that social change was a well-thought out process, when in reality it is far messier and random than that, as many of the stories here testify. It’s an important message that I hope this book manages to get across.

Of course, it is far easier to learn the mechanics of social entrepreneurship – business plans and elevator pitches among them – than to manufacture a passion or a calling in life. You may be the person best-qualified to solve a particular problem in the world, but that’s of little use if you don’t find it. Finding purpose is often the toughest part of the process, and there are few short cuts other than to leave your comfort zone and get yourself out there. One of the first bits of advice I give anyone who wants to make a difference in the world? It’s to ‘go out and make a difference in the world’. Find your passion first. The rest you can learn later – if and when you need it.

Each of the ten authors in this book did just that. And, in many cases, they weren’t even aware that the particular problem they ended up experiencing – and fixing – even existed. In other words, the problem or solution found them. And that can only happen if you’re somewhere it can find you. You won’t, after all, get to experience ‘Third World’ maternal care in London, Paris or New York but you will if you follow Laura Stachel’s lead and spend hard time on the ground in maternity wards in West Africa.
INTRODUCTION

THE MEANING OF RELUCTANCE

Given the nature of how Laura’s innovation (and the nine others in this book) came about, you might be wondering why they’re not accidental, or serendipitous, innovators. Why reluctant?

Over the past eighteen months, as this book gradually turned from idea to reality, everyone from publishers to authors to friends and colleagues have challenged my choice of the word ‘reluctant’. Once or twice I was almost convinced to change it, but held firm. If the contents of this book generate anywhere near the level of debate that the title has, I’ll be more than happy. The title is deliberately provocative, and I hope you get to experience reluctance in all its forms as you read each of the stories we’ve assembled here.

Some of the authors do prefer to call themselves ‘accidental innovators’, but I don’t think this does justice to them or their story. I’d argue that it wasn’t by accident that they found themselves in a situation that changed the course of their lives. Accident implies luck, but it wasn’t luck that Laura Stachel found herself in Nigeria, or Sharon Terry’s children were diagnosed with a genetic disorder, or Erik Hersman found himself deeply troubled by a crisis tearing his home country apart. I prefer the idea of reluctance, the idea that many of these people weren’t looking for a cause to occupy their time or dominate their lives, and that in many cases they were fairly happy with everything before life got complicated. Sure, the rewards of a successful ‘career’ in social entrepreneurship can be significant if you stick to your path and fight like your life depends on it, but for all the romance of the discipline it is an often difficult, frustrating and lonely journey, and far from romantic. The very fact that someone would choose this path over one much easier to me also speaks of reluctance. The easy option isn’t the one they took. They took the hard one for the greater good. You’ll relive much of this pain, angst and frustration as you work your way through the pages of this book.

Reluctance also speaks of an awareness of that greater good, of a story and a cause bigger than any one person. Very few people would willingly put themselves in harms way – confront armed soldiers taking orders from a dictatorial president, for example. But activists do this around the world day after day, risking everything for a cause
they believe in. They do it in pursuit of a bigger goal of freedom, for everyone. In an ideal world they wouldn’t have to take those risks – the oppression and corruption wouldn’t exist. But it does. Like them, many innovators reluctantly make their lives more dangerous, complex, frustrating or challenging for the bigger goal they chase. It’s a decision they don’t take lightly. For many, it’s a considerable sacrifice, yet few would say no to a quieter, simpler life – one which all of them could likely have had. They’re just not those kinds of people.

If one thing drives this home more than any other, it’s family. While some people might dismiss their idea and continue as they were before, Sharon Terry, whose story you’ll find in Chapter 9, had no such choice. Following a shock diagnosis that her children were suffering from a rare genetic disease about which very little was known, Sharon and her husband’s lives turned in a completely new direction. Their reluctance was obvious. In her own words:

As we fell asleep each night amid piles of photocopied papers and enormous medical dictionaries, we knew we had to take the bull by the horns. I remember an evening when we looked at each other, and thought, no, no, no – we don’t want to do this – we do not want to create a system for this disease. Wasn’t it enough to live with it, to cope with it, to walk our kids through it? Couldn’t someone else make sense of it, fix it, give us a call when the cure was in? I begged the universe to please take care of us. No. Reluctantly, we had to admit that this was our burden. There was no one else.

Wes Janz, whose chapter closes the book, has his own take on the role of reluctance, arguing that what we need, in essence, is more of it. When faced with a problem, he gives this advice to budding social innovators:

Don’t do anything. Hesitate. Doubt. Be unsure. Be undecided. In other words, be reluctant. People determined to ‘do something’, or ‘change the world’ or ‘make a difference’ in someone else’s life … well, these folks scare me. Too often it is the case that the interventions of well-intentioned people are soon ignored by or bring harm to locals. Sometimes the best thing we can do for someone else (and ourselves) is to walk away. Let it be. Let them be.
Doing the Right Thing in the Right Way

While we certainly want to encourage people to take an interest in helping others, we also need to make sure they go the right way about it, and do it respectfully. Wes’s concern chimes closely with my own, where I frequently argue that we shouldn’t develop solutions to problems we don’t understand, that we shouldn’t take ownership of a problem that isn’t ours, and we certainly shouldn’t build ‘solutions’ from thousands of miles away and then jump on a plane in search of a home for them. This, in the technology-for-development world I spend most of my time in these days, is generally what tends to happen. Good intentions, often poorly executed.

In a recent guest piece in the Stanford Social Innovation Review, I argued this very point. My argument was well received, but one commenter asked what I suggest all the people who lived far away from the problems of the developing world should do with their passion and time. My response was that there are problems everywhere, including where they lived, and it might be better to try and solve some of those instead. If people really do want to contribute to solving the problems of ‘others’ then they really need to go and live under the same conditions as them for a while. Each of the innovators in this book had exposure to the problems they decided to solve. I only felt remotely qualified to help grassroots non-profits in Africa with their communication problems because I’d spent the best part of twenty years living and working with them. It gave me an insight which was not only crucial to my solution working for them, but it also gave me credibility among the people I was trying to help.

A Personal Journey

I’ve had my own share of reluctance, and difficulty, over the years. A cosy career in offshore banking beckoned at a young age, and while it promised to deliver materially, spiritually it felt far removed from the kinds of things I felt I should be doing. A trip to Zambia in 1993 changed everything, and exposed me to the realities of life for people much less fortunate than myself. And there were many. I soon realised that life
INTRODUCTION

sucked for 90% of people on the planet, and this deeply troubled me. It
does to this day. Here was my call to action, but for longer than I remem-
ber I struggled to figure out precisely what that action should be. How
could I personally contribute to fixing these huge, global injustices?

It’s a question than can easily eat you up. I did get myself ‘out there’,
though. I sold everything I owned on more than one occasion and left
what I called home, a liberating experience as it turned out, even if it
didn’t feel that way at the time. I lived in places like Calabar, South-
ern Nigeria for a year running a primate sanctuary – twelve months
in suffocating heat and humidity mixed with the odd bout of malaria.
I’d often sit in my room at night with a candle, trying to capture my
thoughts and frustrations in a diary, continually searching while
drinking cheap Nigerian beer. As with much of the previous ten years,
I didn’t find anything.

It took a late night motorcycle accident on a busy Calabar road for
my own particular life to turn. After eight days my leg was finally put
back together in a hospital in Jersey, in the Channel Islands, where I was
born. I lay there in pain with no money, no mobility, no job, nowhere to
live and still no idea where my life was headed. This was the lowest
I was to get. Soon after I received an unexpected phone call from an
ex-colleague offering me work on a very early mobile-for-development
project. I upped sticks once more and hobbled over to England to live.
It was January 2003, ten years after my search began. Figuring out how
mobile phones, still rare in number but rising quickly across the devel-
oping world, could help solve some of the more pressing conservation
and development problems of our time was a perfect fit for me, blend-
ing my passion for technology with a passion for international develop-
ment and a desire to help people solve their own problems.

FrontlineSMS, a text messaging communications platform today in
use in over 150 countries around the world, was conceived two years
later over a beer and a football match, and it quite literally saved me. I
finally found purpose, an outlet for my passion and energy that I could
believe in. The way people I had never met took it and did remarkable
things for themselves and their communities genuinely inspired me,
and kept me going during the many dark and challenging days ahead,
particularly at the beginning. FrontlineSMS became my springboard,
one which allowed me to move on and do other things I cared about. This book would not be here today without it, and perhaps neither would I.

The very real frustrations of life as a social innovator come alive on many of the pages of this book, and is testament to the great storytelling abilities of those who have contributed. But not all ventures end in success, and it would be wrong of this book to give that impression. Indeed, the social innovation graveyard is littered with ventures that either ran out of money, ran out of time, or ran out of ideas. The successful projects you read about here are among the few that didn’t suffer that fate.

**Perspiration into Inspiration**

When I started out there were few people I could turn to for advice and support, moral or otherwise. That’s the price you pay, I suppose, for getting into something early. But things are different now – I found my purpose, threw everything at it, and came out the other side. I’ve learnt a lot along the way, and feel the least I can now do is help others who might be at the beginning of their own journey. Whether that be giving advice or a positive critique on an idea, a shot of encouragement, helping raise awareness through blog posts, giving tips on fundraising, making introductions to other projects and people with the same interests, or offering to be a future soundboard as ideas grow and develop. These are all things I didn’t have when I started out, and using them productively now that I do is one of the biggest contributions I believe I can – and should – make to the future growth of our discipline. This book is testament to that commitment.

Our legacy shouldn’t be measured in the projects or tools we build – or, indeed, in the books that we write – but in the people we serve and inspire, and the future we help create.

In the social innovation world we talk a lot about project sustainability, but little about human sustainability. If we’re to have any chance of ongoing success in our battle against the many problems facing society then we need to attract the brightest young minds to the field, and then give them all the support they need to keep them there. Empowerment
INTRODUCTION

isn’t just something we do in a distant land. There’s plenty we can be doing on our own doorstep. It’s a different kind of empowerment, but that doesn’t make it less valuable. If anything, it’s more so.

ADVICE FOR SOCIAL INNOVATORS AT HEART

I’ll close as many of my fellow contributors have, and share a few lessons I’ve learnt as I stumbled my way through the world of social innovation. I hope some of these prove useful as you travel your own path.

• Ask yourself: do you really understand the problem you’re trying to solve?
• Are you the best person to solve the problem? Be honest, and if not go and support the work of someone else who is.
• Don’t be competitive. There’s plenty of poverty to go around.
• Don’t be in a hurry. Grow your idea or project on your own terms.
• Don’t assume you need money to grow. Do what you can before you reach out to funders.
• Volunteers and interns may not be the silver bullet to your human resource issues. Finding people with your passion and commitment willing to work for free can be time consuming and challenging.
• Pursue and maximise every opportunity to promote your work. Be relentless.
• Suppress your ego. Stay humble. Remain curious.
• Remember that your website, for most people, is the primary window to you and your idea.
• Learn when to say ‘no’. Manage expectations. Don’t overstretch.
• Avoid being dragged down by the politics of the industry you’re in. Save your energy for more important things.
• Learn to do what you can’t afford to pay other people to do.
• Be open with the values that drive you. People will respect you for it.
• Collaborate if it’s in the best interests of solving your problem, even if it’s not in your best interests.
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• Make full use of your networks, and remember that the benefits of being in them may not always be immediate.
• Remember the bigger picture, and that whatever you’re trying to solve is bigger than any one person or organisation.
• Don’t beat yourself up looking for your passion. You’ll find it in the most unlikely of places, and if you don’t it could very well find you.
• Finally, strive to be a good person, a role model for others. And if you do succeed, remember the importance of giving back.

Fuelled by the spread of the Internet and the ubiquity of mobile phones, there are more people working to solve pressing social and environmental problems in the world today than ever before in human history.

For anyone wanting to join them, it is my hope that The Rise of the Reluctant Innovator will show the way, or at least one way, and prove that the only qualifications you need to change the world are a little faith, hope and determination.

Join the conversation online:

Twitter: @ReluctantsBook
Facebook: facebook.com/ReluctantInnovation
Website: reluctantinnovation.com
Watching yet another Spanish movie in his friend’s apartment to avoid writing up his doctoral dissertation, Brij Kothari makes a throwaway comment about subtitles, which plants the seed of an idea and spawns a literacy initiative that has, in Bill Clinton’s words, ‘a staggering impact on people’s lives’.

Conception

What does Women on the Verge of a Nervous Breakdown, Pedro Almodóvar’s zany award-winning film, have to do with mass literacy in India? Nothing, and yet … everything! In early 1996, after almost a decade of student life at Cornell University in Ithaca, NY, I was finally in the home stretch of writing my doctoral dissertation. That is precisely when, I believe, the desire to watch movies peaks.

So there we were, Bernadette Joseph, my special friend at the time and now my wife, Chris Scott and his very pregnant wife, Stephanie
Buechler, watching this hysterical movie in Spanish at the Scott–Buechler apartment. As students of Spanish, we had soon discovered that watching movies in the language was not only effective, but also great fun. Those were pre-digital and pre-DVD days when foreign language movies in the USA came on videotapes with English language subtitles.

In an ambience of hilarity, a couple of unrelated thoughts crossed my mind during the movie. I wondered whether uncontrolled laughter could act like a natural Pitocin and precipitate labour. That one I had the good sense to keep to myself. The other thought, which I blurted out during a bathroom break, was simply: 'Why don’t they put Spanish subtitles on Spanish films. We’d catch the dialogue better.' My friends agreed. So I casually ventured an extension, without worrying too much about its linguistic narrowness in a country that has 22 official languages and over a thousand dialects: ‘Maybe India would become literate if they simply added Hindi lyrics to Hindi film songs.’

‘I think you’re onto something,’ Chris reacted. Coming from a fluent Spanish and Hindi speaker who had grown up in India, who understood Bollywood’s hold on Indian passions, it was the sort of nonchalant affirmation I needed in order for a synapse of an idea to become a lifelong obsession. The idea couldn’t have had a more serendipitous beginning. But before I could get too excited about it, I had to confirm the originality of the thought. The idea seemed too ridiculously simple to have not been thought of, or tried, for mass literacy.

I found that most of the literature on subtitling was coming out of the USA and Western Europe. One major stream dealt with the use of subtitling for access to audio-visual content across languages or translation subtitling. Considerable attention is devoted to how translation subtitling can and does contribute to additional language acquisition (second, third, foreign, and so on). Some even suggested subtitling in the ‘same’ language for improving one’s pronunciation and listening comprehension. The other major stream, Closed-Captioning (CC), leveraged subtitling for media access among the deaf and hearing impaired. A trickle of articles talked about subtitling as karaoke in the limited context of entertainment in bars or on increasingly popular home-based karaoke machines.
Worried about the political turmoil in Kenya, and concerned at the lack of information forthcoming from his adoptive country, Erik Hersman mobilises his own five-strong army to conceive, create and launch a web-based facility that revolutionises how breaking news is disseminated worldwide.

MY WORK IN CONTEXT

The air is cool and smells with the scent that seems only to come from airplanes and dry cleaners. A dotted red line shows our path for the next seven hours. And I find myself fortunate today as I sit in an exit row, so the computer can actually fit on my lap without banging up against the seat in front of me.

Soon I’ll land in London. There I’ll navigate meetings with top executives in some of the world’s largest tech companies. There I’ll stand on a stage and speak to a couple hundred people about Africa. There
I’ll find the funding for my endeavours. When I land back in Kenya in three days I’ll take meetings with local start-up entrepreneurs, enjoy cheering while I attend the large annual sevens rugby tournament, all while weaving my motorcycle between the cars jamming up the city.

**WHAT ALLOWS ME TO HANDLE BOTH WORLDS?**

Thirty-six thousand feet below us is the land where I spent my youngest years. We’re crossing over that border point, a nebulous region from above, where South Sudan, Kenya and Uganda butt up against each other. A place where a murky memory serves up images of dusty roads, a metal mabati house in the bush, lost toys in the sand river, escape from flash floods with my sister, hunting lizards, and my village dog and tiny antelope pets.

My memory flashes forward to urban Nairobi of the 1980s, right after the coup. Of soccer fields, tinkering with small electrical engines, towels draped like superman capes off of our backs, kick-the-can and van rides across town with the other missionary kids to a school where I was only interested in getting good enough grades to not get a spanking.

Quick flits – trips to America. To the family by blood that I don’t know. Being good at sports that Americans didn’t play, and being bad at things that they did. Bicycling all over, learning to fish. Grateful when the time there was done and we were heading back home to Africa.

At 13, realising that I wanted to go to boarding school, that I was made for it, too independent. Rugby. Basketball. Soccer. The things that save a teenager from boredom while on an escarpment campus with a view unparalleled over the Rift Valley. Learning to compete. Learning friendship. Learning to question. Learning business through action, and through spoken day dreams of wannabe entrepreneurs.

It’s generally good, all of it, a history I wouldn’t trade. It’s this uncommon past that allows me to travel, communicate and build so easily between worlds and cultures.

There is a strange mixture that formed my character. A combination of travel, mixed cultural experiences, tough education facilities,
Parachuted into the middle of sub-Saharan Africa with a brief to collect public health data, and confronted with a laborious, environmentally wasteful paper-based system, paediatrician Joel Selanikio finds the perfect outlet for the skills he acquired as a Wall Street computer consultant.

AN ACCIDENTAL INNOVATOR

‘Name the greatest of all inventors. It is accident.’ — Mark Twain

When Ken Banks told me about this book, and the theme of ‘reluctant innovators’, I’ll admit I didn’t think it really applied to me. As someone trained in science, I’ve never been reluctant to look for new solutions when old approaches were failing.
Good science is always oriented towards innovation. When things don’t work out in the lab, you brush off the dust and clean up the broken glass, adjust your theory, and come up with a new one.

I have had my share of luck, too. For example, the luck of choosing to do my paediatric residency right next door to the US Centers for Disease Control and Prevention (CDC). That put the right set of skills and concepts – public health and epidemiology, along with my computer background – in the path of the right problem: the lack of good health data. Definitely a lucky break for me.

Reluctant innovator? No. Much more accidental than reluctant.

**EARLY DAYS**

When I left college in the late 1980s I had a degree in sociology but had also taken a course in computer science. I was lucky enough to get a job working as a computer consultant for Chase Manhattan Bank (now merged with JP Morgan), and I worked for that bank for a number of years, helping them figure out how to connect their mainframe-based databases with the ‘personal computers’ that were coming out at the time.

While the work paid well enough, at that young and idealistic age I was looking for a calling and not just a job, and I soon left Chase to pursue first my pre-med qualifications and then medical school. Medicine, it seemed to me, would challenge my intellect, was oriented towards serving others and, yes, would let me make a good living.

At that time I honestly thought that I was leaving behind my work with information technology – not realising that a tsunami of IT was just picking up speed and would be transforming the world, and that my skill and understanding of IT might be useful in such a world.

In fact, though I did not realise it at the time, my computer expertise would later become a major driver of my life’s path, as IT grew enormously important in all of our lives.

*Lesson 1: quite often we are oblivious to the great societal and technological changes occurring around us.*
Intending to ground himself in the realities of global health during his internship in rural Malawi, Josh Nesbit discovers that it is hard to sit on the sidelines and soon finds himself proposing a mobile technology solution to overcome the difficulty of connecting patients, community health workers and hospitals.

I wanted to be a doctor. Or, at least, that was what I told anyone who asked. It did seem like a good idea. I could work tenaciously towards a set goal, earning a position that would allow me to care for people. Despite my young, unsettled mind, it was hard to imagine a moral philosophy at odds with healing.

I was an undergraduate at Stanford University at the time, studying Human Biology with a concentration in Global Health and Bioethics. When it came time to choose a location for an internship, there was only one real option – St Gabriel’s Hospital in rural Malawi. My younger
sister and mother had built a relationship with hospital staff the previous summer, we were connected to a foundation supporting the palliative care programme, and the hospital was ready to put me to work. A substantial – and reasonable – fear as an adventuring twenty-something was that I would be in the way, more of a distraction than a helper or change agent. I arrived in Malawi knowing I could at least count pills in the dispensary. Each pill in each packet of drugs was hand-placed.

The main goal, I told myself, was to ground myself in the realities of global health. I learned quickly that it was hard to sit on the sidelines. I met patients walking or oxcarting over one hundred miles to reach the hospital, accompanied by worried family members – their guardians responsible for food, water and bathing during the patient’s hospital stay.

The outpatient ward hallway was always packed full of people – the single doctor attending to patients was overwhelmed. Over 500 community health volunteers were doing the best they could to take care of people in their own communities, but they were just as disconnected from the hospital as the patients.

The first health volunteer I met was Dickson Mtanga. He would travel 35 miles to the hospital at least once a week, accompanying patients on journeys or coming along to deliver messages. He carried a notebook, tightly wrapped in newspaper. I soon learned he was keeping meticulous, hand-written patient notes during his home visits for the treatment supervisors at the hospital. Dickson was supporting people in his community being treated for HIV/AIDS and tuberculosis (TB). He washed their bed sheets, monitored any side effects, and bicycled or walked to the hospital to provide updates to clinical staff. He served as his community’s only connection to the hospital.

One day I visited Dickson’s home. He was a proud grandfather, and his extended family provided a warm welcome. After greetings, I pulled out my mobile phone and checked for signal. To my amazement, I had fantastic coverage. This was it! I might have a helpful idea. With the thought still very fresh, I sat down with Dickson to discuss: What if he used a cell phone to stay in touch with the hospital and coordinate healthcare for his community? What if we used this brand new cellular infrastructure, which had sprung up less than a year beforehand? It
After watching local doctors and midwives struggle to treat critically ill pregnant women in near-total darkness on a Nigerian maternity ward, where an untimely power cut can mean the difference between life and death, obstetrician Laura Stachel delivers a solar-based solution that greatly enhances their survival prospects.

The woman had been in labour for hours and was suffering extreme pain. Her condition was deemed critical by the Nigerian medical staff and the decision was made to operate. The power grid was down. A nurse lit a kerosene lamp in the maternity ward. It barely lit the ward and was certainly inadequate for the operating theatre. We waited in the maternity ward, with the patient sitting in a wheelchair. The power surged back on, and we wheeled the patient to the surgical ward. A portable surgical lamp provided weak illumination in the operating room, adequate only by African standards. Using my flashlight, nurses prepped the patient for surgery. At the foot of the operating table, a
nurse held my flashlight and directed a beam of light towards the patient. This aided considerably, particularly during the subsequent two power outages that occurred mid-procedure.

— Research notes, Nigeria, 2008

In my obstetrical practice in the United States, I loved being a part of the birth process – and considered it a privilege to be included in the intimacy of childbirth. It was my duty to support and empower the women I cared for. During labour, I often imagined an ancestral line of women who had given birth, each bearing the next generation, leading to this moment in time.

It wasn’t until I spent time in the darkened maternity unit of a Nigerian hospital that I began to struggle deeply with the complexity of what is medically known as maternal mortality – women dying in childbirth. For most pregnant women, the idea is an anachronism. But in the developing world, particularly in sub-Saharan Africa, death from ‘complications of childbirth’ happens hundreds of times a day.

As an obstetrician, I am trained to solve problems in pregnancy and labour. I analyse what I see and chart a course of action. But the problems I confronted on my first trip to Africa – the erratic electricity, surgical delays because of poor lighting and lack of mobile communication, the scarcity of medical instruments, the inadequate staffing and limited training – were symptoms of a systemic failure. Maternal care was in dire straits for reasons far beyond any medical techniques I could offer: poverty, lack of infrastructure, gender inequity, illiteracy and politics all conspired against the health and survival of pregnant women. Within the hospital, lack of reliable electricity stood out as a major obstacle to providing effective maternal care.

I never expected to be a social innovator in the developing world, let alone an advocate for solar energy for maternal health care. But as I witnessed women struggling to survive childbirth in Nigeria, and health workers trying their best to provide care in darkened maternity wards, I knew I couldn’t turn my back on this problem.

My first passion in life was music and dance. At the age of 17, I entered Oberlin Conservatory and College to study for a career as a concert pianist and modern dancer. I devoted myself to practice, spending eight hours a day in the music conservatory and dance studio.
Observing how well the autistic son of a close friend responds to the therapeutic effects of a Chinese massage technique that she has advocated using, Louisa Silva is convinced that the treatment has the potential to benefit thousands of others, but she needs to prove it.

Sometimes, it is only when a condition starts to get better that you understand what was wrong in the first place. Such has been my experience with autism. As I came to find out, the solution was in the problem.

I am a doctor of Western and Chinese medicines, with a further specialty in public health. Throughout my appointment at Western Oregon University’s Teaching Research Institute I have researched a massage treatment for young children with autism that is based on principles of Chinese medicine.
I didn’t start my medical career with a desire to do university-based research. In fact, I came to it later in life, after I turned fifty. My first passion was public health. The mission to help people stay healthy – and when they are ill, to give them safe, affordable treatment – is the one that drew me to medicine, and one I really believe in to this day.

I’ve worked internationally in Central America and India, as well as in the United States, and over the years as I reached the limits of what Western medicine could do for my patients, I added osteopathic medicine, homeopathic medicine and herbal medicine to my repertoire. It wasn’t until I studied Chinese medicine, however, that I hit the proverbial jackpot for safe and effective treatments. I had already integrated the principles of Chinese medicine into my family medical practice in Salem, Oregon and was contentedly practising my particular blend of Chinese medicine, public health and Western medicine, when in 2000 something happened that took my life in a totally unexpected direction.

**THE CALL FOR HELP**

The son of a dear friend wasn’t developing normally. He was four and he hadn’t started talking. He wasn’t sleeping (and so his parents weren’t sleeping either). He was hyperactive, constantly running around – and running off. He was easily overstimulated to the point of meltdown. Even ordinary family events like meals, gatherings, or outings were major struggles. Despite the fact that both parents were educators and skilled communicators, they couldn’t communicate with him, teach him, or even reach him most of the time. It was difficult for them to moderate his energy or regulate his behaviour. He could not be soothed or redirected. Simply keeping him from being a danger to himself was an exhausting, all-consuming task.

I had been aware of the difficulties my friends had endured – how many months they’d spent visiting specialists to find out what was wrong, how hard it was for them to get through each day. But when the diagnosis of autism finally came, what caught me square between the eyes was how little relief this ‘answer’ brought them. Instead, the information sent my friends into a tailspin of despair that dragged the whole family down.
Haunted by the memory of being separated from her older sister during a childhood spent in foster care, and horrified that other siblings are continuing to suffer the same fate, Lynn Price resolves to devise a way to bring such people back together.

Brothers and sisters: They fight, argue and tease – and yet they are each other’s best advocates, best friends and enjoy the longest relationships in life.

Sitting at a courtyard table on the campus of Child Haven, a children’s shelter in Las Vegas, I followed little Emily’s gaze across the grassy quad to a teenage boy shooting baskets on the court across the way. ‘Who is he?’ I asked. ‘My brother, Jimmy,’ she answered shyly. ‘He looks like a great basketball player and great big brother,’ I said with a smile. Emily didn’t hesitate for a moment. ‘He is very cool and I miss him so
much,' she said tearfully. 'Well, let's get him over here,' I cried, rising from the table. I started to walk towards Jimmy to invite him to join us.

That's when a full time staffer approached me and informed me that Jimmy could not come over. As a weekly volunteer, I was unfamiliar with that policy. While the Department of Children and Family Services investigated whether it was safe for the children to return home to their parents, or organised transition to foster care or relatives, children and youths were temporarily assigned to a specific cottage and area of the campus according to age and gender.

Even though they were brother and sister, Emily and Jimmy had to remain in their respective areas of the campus, except during special events that took place from time to time for all children and youths at the shelter.

The thought struck me like a bolt of lightning. Brothers and sisters are being separated and can't get together when they want? I had a personal flashback to when my sister Andi and I were separated in different foster homes and could only see each other on supervised visits or at special events.

Abandoned by our father, and deprived of our mother, who was institutionalised following a mental breakdown, Andi and I were placed into separate foster homes. I was eight months old and Andi was two-and-a-half at the time. It wasn't until I was eight years old that my foster parents revealed they were not my real parents. Evidently, our mother had made a miracle recovery and wanted to see her children. That's when the parents I always called 'mom and dad' told me that they were my foster parents, that I was a foster child, and that I had a 'real' mother and an older sister.

I was stunned, wanted my mom and dad, not another mother, refused to accept the label of 'foster child' or acknowledge an older sister, and hated playing the foster role during the next few years when we had supervised visits or special events.

Things changed when I was a junior in high school and Andi was a freshman in college. She invited me to spend a weekend with her. Excited to go to the big school, yet scared to share a weekend with a stranger, I arrived at campus only to be met by Andi with open arms and a whisper in my ear: 'Can I introduce you as my little sister?'
An unexpected conversation over dinner leads to the birth of an innovative new organisation with a mission to fight for the rights of people denied access to life-saving medicines.

A stranger’s heartbreak can be unforgettable. As I prepared for a client meeting with Rahim – his name is changed here for confidentiality reasons – I had no idea my life was about to change. I was working in India as the project manager of a legal aid organisation that represented and advocated for indigent HIV-positive clients, and I frequently encountered clients who could not afford anti-retroviral therapy or medications for opportunistic infection.

Rahim stood out, though. At seventeen he was so severely malnourished that he looked no more than seven. He was sweet, articulate and desperately fighting to continue his education, despite his illness. The recipient of a negligent blood transfusion at a government hospital in
Tamil Nadu, India, HIV had ravaged his delicate frame. As I prepared to file his petition in court to seek damages and free medication, I realised something had changed within me. After five years as an attorney, I was no longer satisfied to only advocate at the local level for impoverished patients and communities. I needed to change the systems that were standing in the way of getting treatment to all patients. I needed to bring together experts that could take on a market that was failing communities – communities whose immunologic failure could be reversed.

This is how my journey to build I-MAK began.

THE BEGINNING

In truth, my journey began when I was seven. My Delhi-based grandfather gave me a dictionary, and these words from the Pakistani poet Faiz: ‘I shall place a tongue in every link of chain that fetters me.’ My grandfather was a pioneer of the working journalists’ movement and a freedom fighter in Gandhi’s struggle for independence. He explained to me that while he was imprisoned in Alipuram Jail, he started an underground newspaper written on slates, dreaming of a better tomorrow for the dispossessed. In that moment, my grandfather gave me a precious gift. He showed me that words are a weapon, to be used with skill and for peace.

He altered the course of my life with that gift – along with the rest of our family. I grew up thinking it was ordinary to have a family for whom the ability to hold, house and uplift an entire community was not a righteous aspiration, but a calling.

I am born from this blood.

I needed to go back to the place where they did their seva, or service, to understand the communities that made up my family’s country. I now realise that my family is anything but ordinary: a collective of organisers, scientists, teachers and journalists in which fierce political discussions around the dinner table were the norm. I needed to go back so I could learn how to do my own seva, with more depth and precision and understanding, and not from a comfortable law firm office in Los Angeles or from a prestigious desk in Geneva.
Until a visit to the dermatologist turns her world upside down, Sharon Terry has never heard of pseudoxanthoma elasticum (PXE), but when she discovers that research into the disease afflicting her children is hidebound by scientific protocol, she sets about changing the system with characteristic zeal.

**Crossing the Threshold**

There are those moments in life you know you will remember forever. They constitute a clear and delineated threshold. You cross it and there is no going back. It is very different than remembering where you were when you heard that John Kennedy was shot, or the Berlin Wall was no longer a barrier. Life is a different colour and hue on the other side.
This sort of moment propelled me into a reluctant, deeper, entre-
preneurism. I say deeper, because it led to the discovery that I have 
been a reluctant entrepreneur all of my life. Adversities of one kind or 
another have called my creativity forth and refined it in a crucible, a 
process that I often fought against. For me, the essence of who I am 
has been called into fullness by adversity. Entrepreneurism is simply 
a mechanism, and sometimes the expression of a neurosis, by which I 
have become me.

The build-up to that moment was a particular kind of rollercoast-
er ride, sometimes called the diagnostic odyssey. I was at my niece's 
first birthday party in 1992, the first happy event since the death of 
my brother about four months before, and I noticed in the softening 
sunlight three small dots on each side of my daughter's neck. It was 
a hot September afternoon in Connecticut, and I thought about this 
discovery for a moment, feeling a little flip of fear in my stomach, and 
then let it go – returning to the quest for equilibrium for our extended 
family in the face of the large 
hole left by Stephen’s death at thirty-one years old.

Over the next months, and 
years, I asked our paediatri-
cian periodically: ‘What are 
these dots? Why are they only 
on the sides of her neck? Why 
are they slowly increasing in 
number over time? Are they 
important? Should I ignore 
them?’ She repeatedly reas-
sured me that I was needlessly worried. She suggested it was a laundry 
detergent allergy. I wasn’t convinced and silently baulked – why wer-
en’t these dots all the way around her neck? Then, reassuring myself, I 
would agree with her that I was neurotically suspicious of the slightest 
thing since my brother’s death, and yes, I should be in therapy mitigat-
ing that neurosis. Or probably these dots weren’t really progressing, 
right? Then why did photos from year to year look so different? Thank 
goodness I was in therapy as this chapter unfolded!
Encounters and conversations with leftover people occupying leftover spaces and using leftover materials, at home and abroad, led architecture professor Wes Janz to view them as urban pioneers, not victims, and teach him a valuable lesson: think small and listen to those at the sharp end.

Cages. Cage homes actually. 1m × 1m × 2m open-air containers, three high, four floors above Kwun Tong District, Hong Kong 2006. A man cross-legged in the lowest wire-meshed wireframe, head down as we walked through his cage tower neighbourhood. Estimates of 100,000 people living in cages today.

Buenos Aires 2004. If you attended a production at the Cervantes National Theatre you might remember – a woman lived in a sidewalk lean-to built into an oversized pedimented doorway. Tourists and the well-to-do of Argentina looked away as she ate, washed her clothes, and slept in the open. Street theatre redefined.
Express train from Delhi, 16.5 hours, slow motion into Mumbai. Daybreak 2001. Thousands of poor. For me, the poorest. People live outside. Wash in dirty puddles. Eat at garbage piles alongside cows and pigs. Dozens of men squat at the rail line. They defecate, urinate and yawn as we clickety-clack, clickety-clack to the station.

Many cities are undergoing extraordinary growth with millions of residents living in conditions unknown to others more privileged. People are hungry, thirsty. They need places to work, sleep, love, play. They deserve health care, public transportation, safe drinking water and sanitation, schools, land rights. Some are on the move to keep ahead of war, ethnic cleansing, religious persecution or famine. Others want just a chance, just an opportunity for their children. Many of the newest arrivals are looking for families or family friends, maybe living on the pavement for the first days or weeks until they find a place, maybe an informal settlement.

According to UN-Habitat, the numbers are big. More than one billion people live in slums worldwide (with another one billion expected by
ABOUT THE AUTHORS

FOREWORD: ARCHBISHOP DESMOND TUTU

A
rchbishop Desmond Tutu is a Nobel Peace Laureate and for-
mer Archbishop of Cape Town who played a key role in the fight
against apartheid in South Africa. In 1995, President Nelson Mandela
appointed him Chairman of the Truth and Reconciliation Commission,
a body set up to probe gross human rights violations that occurred
under apartheid. Today, Archbishop Tutu is considered an elder world
statesman and is widely regarded as a moral voice promoting peace,
reconciliation and justice.

INTRODUCTION: KEN BANKS

K
en Banks, Founder of kiwanja.net, devotes himself to the applica-
tion of mobile technology for positive social and environmental
change, and has spent the last two decades working on projects in
Africa. His early research resulted in the development of FrontlineSMS,
an award-winning text message communication system today power-
ing thousands of social change projects in over one hundred and fifty
countries around the world.

Following a management transition at FrontlineSMS in mid-2012,
Ken has been focusing on a new project, Means of Exchange, which
looks at how everyday technologies can be used to democratise op-
portunities for economic self-sufficiency, rebuild local community and
promote a return to local resource use.
Ken graduated from Sussex University with honours in Social Anthropology with Development Studies, was awarded a Stanford University Reuters Digital Vision Fellowship in 2006, and named a PopTech Social Innovation Fellow in 2008. In 2009 he was named a Laureate of the Tech Awards, an international awards programme which honours innovators from around the world who are applying technology to benefit humanity. He was named a National Geographic Emerging Explorer in May 2010 and an Ashoka Fellow in 2011, and was the recipient of the 2011 Pizzigati Prize for Software in the Public Interest. That summer he won the Curry Stone Design Prize for his pioneering work with FrontlineSMS, and was selected as a member of the UK Prime Minister’s delegation to Africa. In 2012 the Cambridge business community presented Ken with a ‘Special Achievement Award’ for his work as a social entrepreneur. Later that year he was made a Fellow of the Royal Society of Arts.

Ken represents Sussex University as their Ambassador for International Development, and is a founding member of the British Government Department for International Development’s ‘Digital Advisory Board’. In addition to his own work, Ken mentors early-stage entrepreneurs through PopTech and the Unreasonable Institute.

Ken is also well known for his writing and blogging on Africa, technology and innovation and his work has been published online by CNN, the BBC and the Guardian among others. He has also written for the print edition of Wired magazine, and has had guest chapters published in a number of collaborative books. When he’s not working, Ken spends much of his time being bossed around by his young son, Henry, and twins Madeleine and Oliver.

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### Chapter 1: Brij Kothari

Brij Kothari is on the faculty of the Indian Institute of Management, Ahmedabad (IIM-A) and the founder of PlanetRead.org (non-profit)
and BookBox.com (for-profit), both dedicated to literacy and language learning through popular culture, mass media and Information and Communication Technologies.

At IIM-A and PlanetRead, Brij and his team have innovated, researched and implemented Same Language Subtitling (SLS) on television for mass literacy. SLS on Bollywood film songs delivers reading practice to 200 million early-readers in India, prompting Bill Clinton to call it ‘a small change that has a staggering impact on people’s lives.’ He has represented his SLS work at the Clinton Global Initiative in New York (2009 and 2011) and the World Economic Forum in Davos (2011 and 2013).

BookBox produces animated stories for children, integrated with SLS to deliver reading and language learning in over thirty languages. BookBox content is freely available on YouTube.

Brij was elected Schwab Foundation Indian Social Entrepreneur of the Year (2009), Ashoka Fellow (2004) and Reuters Digital Vision Fellow at Stanford University (2003). His research publications have primarily focused on literacy, primary education and indigenous knowledge. He is a regular columnist on social innovation and entrepreneurship for the Financial Chronicle.

The SLS innovation recently won the 2013 International Prize of the Library of Congress Literacy Awards. It is also the recipient of awards from the All Children Reading Grand Challenge (USAID), Tech Museum of Innovation (San Jose), the Institute for Social Inventions (London), Development Marketplace (World Bank) and the NASSOM Foundation (Social Innovation Honour). Brij is a Finalist for the World Technology Award for Education (2013).

Brij grew up in the Sri Aurobindo Ashram in Pondicherry, India. He has a PhD in Education and a Masters in Development Communication from Cornell University, and a Masters in Physics from the Indian Institute of Technology, Kanpur.

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Chapter 2: Erik Hersman

Erik Hersman is an entrepreneur, writer and speaker on the boundless spirit of technology innovation in Africa. He is the co-founder of Ushahidi, which allows users to share breaking news through text messaging that continues to revolutionise and empower journalists, watchdog groups, and everyday people around the world. He also founded the iHub in Nairobi, the innovation hub for the technology community, which is bringing together entrepreneurs, hackers, designers and the investment community and is built around the vision of an epicentre for Kenya’s booming tech industry. He is also the founder of the BRCK, a new connectivity device that is considered a back-up generator for the Internet, and is a general partner in the Savannah Fund, which makes small seed investments in Africa’s tech start-ups.

A TED Senior Fellow and PopTech Faculty Fellow, Erik grew up in Kenya and Sudan and keeps two influential blogs: WhiteAfrican, where he writes about technology on the African continent, and AfriGadget, a group blog that celebrates African ingenuity.

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Chapter 3: Joel Selanikio

Dr Joel Selanikio leads DataDyne’s efforts to develop and promote new technologies and business models for health and international development, including multiple award-winning Magpi mobile data collection software (formerly EpiSurveyor) – the most widely scaled mobile technology ever created for international development, with over 24,000 users in more than 170 countries.

Dr Selanikio is a frequent speaker and consultant in the fields of social entrepreneurship, innovation, public health and the use of technology for development ("ICT4D"). He is a judge for the GSMA Global Mobile Awards, was named by Forbes as one of the most powerful innovators
of 2009, and is a winner of the Lemelson–MIT Award for Sustainability and the Wall Street Journal Technology Innovation Award.

He has been profiled by *The Guardian*, *Wired*, *Forbes*, *The Economist*, *The Wall Street Journal*, the BBC and *The Washington Post*, among many others. His public speaking includes presentations at The World Economic Forum in Davos, TED, Foo Camp, Google, Clinton Global Initiative, the Royal Society of Medicine, SciFoo and many other venues.

Dr Selanikio is a practising paediatrician, as well as a former Wall Street computer consultant, and former CDC epidemiologist. In his role as an officer of the Public Health Service, Dr Selanikio served as Chief of Operations for the HHS Secretary’s Emergency Command Centre in the aftermath of 9/11. In 2005, he was given the Haverford Award for Humanitarian Service for his work in treating tsunami victims in Aceh, Indonesia.

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### Chapter 4: Josh Nesbit

Josh Nesbit is the CEO and co-founder of Medic Mobile, a non-profit technology company on a mission to improve health equity in underserved communities. Medic Mobile supports 10,000 community health workers across nineteen countries in Africa, Asia, Latin America and the USA. Josh also created Hope Phones, a cell phone recycling campaign designed to engage millions of Americans. He is an Ashoka Fellow, PopTech Social Innovation Fellow, Echoing Green Fellow and Rainer Arnhold Fellow. Josh was selected by Devex as one of 40 Under 40 Leaders in International Development, received the Truman Award for Innovation from the Society for International Development and was named by Forbes in 2011 as one of the world’s top thirty social entrepreneurs.

**Website:** medicmobile.org  
**Twitter:** @joshnesbit | @medic
Chapter 5: Laura Stachel

Dr. Laura Stachel, co-founder and executive director of We Care Solar, is a board-certified obstetrician-gynaecologist with fourteen years of clinical experience. She holds an MD from the University of California, San Francisco and an MPH in Maternal and Child Health from the University of California, Berkeley. Her research on maternal mortality in Nigeria in 2008 alerted her to the deleterious effects of energy poverty on maternal health outcomes. Along with Hal Aronson, she co-founded We Care Solar to bring simple solar electric solutions to maternal and child health care in regions without reliable electricity. We Care Solar has equipped hundreds of health facilities in more than twenty-five countries with the Solar Suitcase, a compact solar energy system providing essential lighting and power.

Laura is passionate about promoting sustainable energy solutions for women’s health and speaks around the world on this topic. She has been active in the UN Foundation’s Sustainable Energy for All Initiative and co-chairs the Working Group on Energy and Health. Laura is one of the Top 10 CNN Heroes of 2013. For her work with We Care Solar, Laura received the 2012 Clean Energy, Education and Empowerment Award, the 2012 United Nations Association Global Citizens Award, the 2011 Tech Award, the 2010 Jefferson Award for Public Service, and the 2010 UC Berkeley Chancellor’s Award for Civic Engagement.

Laura is on staff at the Blum Center for Developing Economies at the University of California, Berkeley. She has taught in the UC Berkeley School of Public Health and serves on the editorial board for the Berkeley Wellness Letter.

Website: wecaresolar.org
Twitter: @wecaresolar | @lestachel

Chapter 6: Louisa Silva

Dr. Louisa Silva enjoys practicing medicine in a way that integrates Western medicine, Chinese medicine and Public Health. She had no
plans to go into research until the son of a dear friend was diagnosed with autism and she became aware of the devastating lack of options for families. She decided to do something about it. She was awarded grants from Northwest Health Foundation and the Curry Stone Foundation and, over the next ten years, carried out research on a daily parent-delivered massage therapy for autism, based on Chinese medicine. Her research studies have been published. They show that five months of therapy reduces the severity of autism by 25% and improves sleep, digestion and behaviour.

Dr Silva is the first person to show the connection between an abnormal sense of touch and autism, and to research a massage programme whereby parents can normalise their child's sense of touch. She holds a medical degree from UCLA, and a Masters in Public Health and Preventive Medicine from the Medical College of Wisconsin. She lives in Oregon and San Francisco.

Website: qsti.org

CHAPTER 7: LYNN PRICE

Lynn Price is a social entrepreneur, author and inspirational speaker featured on the front page of the US National Speakers Association magazine. With wit, wisdom and compelling stories, she moves corporate and non-profit communities to balance making a living alongside making a difference. Her expertise is Vision For A Change, guiding individuals and groups to bring business ventures to fruition and thrive with the Power of the Ripple to replicate and grow.

Passionate about social responsibility and making change in the world, Lynn is the recipient of the US Points of Light President's Service Award, presented by President Bill Clinton, and Oprah Winfrey's Angel Network Use Your Life Award. Lynn is Founder and President Emeritus of Camp To Belong, an international non-profit organisation dedicated to re-uniting brothers and sisters placed in separate foster homes or other out-of-home care at summer camps and year round experiences. Previously, Lynn was a sales, business development and
communications professional with ESPN, Group W Westinghouse Satellite Communications, The Golf Channel and National CineMedia (NCM). She is author of *Vision For A Change: A Social Entrepreneur's Insights from the Heart* and *Real Belonging: Give Siblings Their Right to Reunite* available at amazon.com. Lynn is an Ashoka Fellow, recognised as one of approximately 2,000 global social entrepreneurs around the world.

**Website:** lynnprice.com

**Chapter 8: Priti Radhakrishnan**

Priti Radhakrishnan is Co-founder and Director of Treatment Access at I-MAK. She obtained her law degree from New York University (NYU) School of Law and has worked as a health attorney in the United States, Switzerland and India. Prior to founding I-MAK, she served as the Senior Project Officer of the Lawyers Collective HIV/AIDS Unit in India.

In 2007 Priti coordinated the efforts of TEAM VINAY – a movement that registered 25,000 new bone marrow donors in the South Asian American community, which received the National Marrow Donor Program's Lieutenant General Frank E. Peterson Jr. award for innovation and commitment to minority recruitment & retention of bone marrow donors. In 2008, she was awarded the Echoing Green Fellowship for social entrepreneurs, the PopTech Social Innovation Fellowship and was selected as one of 160 dynamic young leaders for the 2008 Asia 21 Young Leaders Summit in Tokyo. The Asia Society also selected Priti as one of three young leaders from the United States for its 2009 Class of Asia 21 Fellows. Priti was awarded the 2010 Black, Latino, Asian Pacific American NYU Law Association's Young Alumni Award. She was named NYU School of Law's Alumnus of the Month (November 2009) and was the 2010 Honoree of the NYU Law Women of Color Collective. Priti was also selected by the King Baudouin Foundation as one of a group of young visionaries making change for its Spotlight on the Millennials series.

In 2011, Priti was named an Associate Fellow by the Asia Society. In 2012 she served as a Mentor at the Unreasonable Institute, an
international accelerator for high-impact entrepreneurs. In 2012, Priti was a recipient of the South Asian Bar Association of New York's Legal Trailblazer Award. She is currently serving as a Fellow with the India-Pakistan Regional Young Leaders Forum, as an adjunct faculty member at the St Luke Foundation/Kilimanjaro School of Pharmacy and as Faculty for PopTech’s Social Innovation Fellows Program. In 2013, Priti was also awarded the National South Asian Bar Association’s Public Interest Achievement Award and was named to the Good 100, a selection of the 100 most innovative individuals changing the world.

Website: i-mak.org

CHAPTER 9: SHARON TERRY

S haron F. Terry is President and CEO of Genetic Alliance, a network of more than 10,000 organisations, of which 1,200 are disease advocacy organisations. Genetic Alliance enables individuals, families and communities to reclaim their health and become full participants in translational research and services.

She is the founding CEO of PXE International, a research advocacy organisation for the genetic condition pseudoxanthoma elasticum (PXE). As co-discoverer of the gene associated with PXE, she holds the patent for ABCC6 to act as its steward and has assigned her rights to the foundation. She developed a diagnostic test and conducts clinical trials. She is the author of more than 120 peer-reviewed papers, of which 30 are PXE clinical studies.

Sharon is also a co-founder of the Genetic Alliance Registry and Bio-Bank. In her focus at the forefront of consumer participation in genetics research, services and policy, she serves in a leadership role on many of the major international and national organisations, including the Institute of Medicine Science and Policy Board, the IOM Roundtable on Translating Genomic-Based Research for Health, the PubMed Central National Advisory Committee, the National Coalition for Health Professional Education in Genetics Board, the International Rare Disease
Research Consortium Executive Committee and as Founding President of EspeRare Foundation. She is on the editorial boards of several journals. She was instrumental in the passage of the Genetic Information Non-Discrimination Act. In 2005, she received an honorary doctorate from Iona College for her work in community engagement; the first Patient Service Award from the UNC Institute for Pharmacogenomics and Individualized Therapy in 2007; the Research!America Distinguished Organization Advocacy Award in 2009; and, in 2011, the Clinical Research Forum and Foundation’s Annual Award for Leadership in Public Advocacy. In 2012, she became an honorary professor of Hebei United University in Tangshan, China, and also received the Facing Our Risk of Cancer Empowered (FORCE) Spirit of Empowerment Advocacy Award. She was named one of FDA’s ‘30 Heroes for the Thirtieth Anniversary of the Orphan Drug Act’ in 2013. She is an Ashoka Fellow.

Website: GeneticAlliance.org
Twitter: @sharonfterry | @reg4all | @gabiobank |
          @trialsfinder | @babysfirsttest | @genesinlife

Chapter 10: Wes Janz

Wes Janz, PhD, RA, is a professor of architecture at Ball State University, Muncie, Indiana. In 2006, he was the recipient of the university’s Outstanding Teaching Award. He is the founder of onesmallproject, a collection of global and local initiatives that foreground the lives of people many observers consider to be in need or at risk. Wes was one of five finalists for the inaugural Curry Stone Design Prize, an international award established in 2008 to recognise and encourage breakthrough projects that ‘engage communities at the fulcrum of change, raising awareness, empowering individuals and fostering collective revitalisation.’ He is married to Marcia Stone and lives in Indianapolis, Indiana.

Website: onesmallproject.org
Twitter: @onesmallproject
The Curry Stone Design Prize rewards innovators who include design to creatively revitalise community.

Watch our short videos. Be inspired. It’s free.

currystonedesignprize.com

The Curry Stone Design Prize is honoured to support the publication of this book.

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Despite the tens of billions spent each year in international aid, some of the most promising and exciting social innovations and businesses have come about by chance. Many of the people behind them did not consciously set out to solve anything, but they did. Welcome to the world of the reluctant innovator.

“This important, timely book gives the reader an invaluable insight into the workings of the world of social entrepreneurship. It is a must-read for students, practitioners, policymakers and anyone with a passing interest in how to work for the greater good.”

Professor Klaus Schwab, Founder of the World Economic Forum and Co-Founder of the Schwab Foundation for Social Entrepreneurship

“This book’s vivid, engaging stories – of ordinary people who have devoted their lives to solving problems and injustices they never expected to encounter – make a major contribution to understanding what social innovation is all about. This is an inspiring and essential read for everyone who cares about our flawed, messy, beautiful world and believes in its myriad possibilities.”

Hannah Bloch, Mission Projects Editor, National Geographic magazine

“Ken Banks, whose career has taken him from offshore banking to launching a brilliant communications tool for Africa, takes us on a social innovation journey. We meet ten entrepreneurs who happened on life-changing ideas – from solar lighting for African maternity wards to film subtitles to promote literacy in India – and then fought against every kind of obstacle to make them happen. Inspiring and instructive.”

Rory Cellan-Jones, BBC Technology Correspondent

Ken Banks, founder of kiwanja.net, devotes himself to the application of mobile technology for positive social and environmental change in the developing world. He is a PopTech Fellow, a Tech Awards Laureate, an Ashoka Fellow and a National Geographic Emerging Explorer, and has been internationally recognised for his technology-based work.