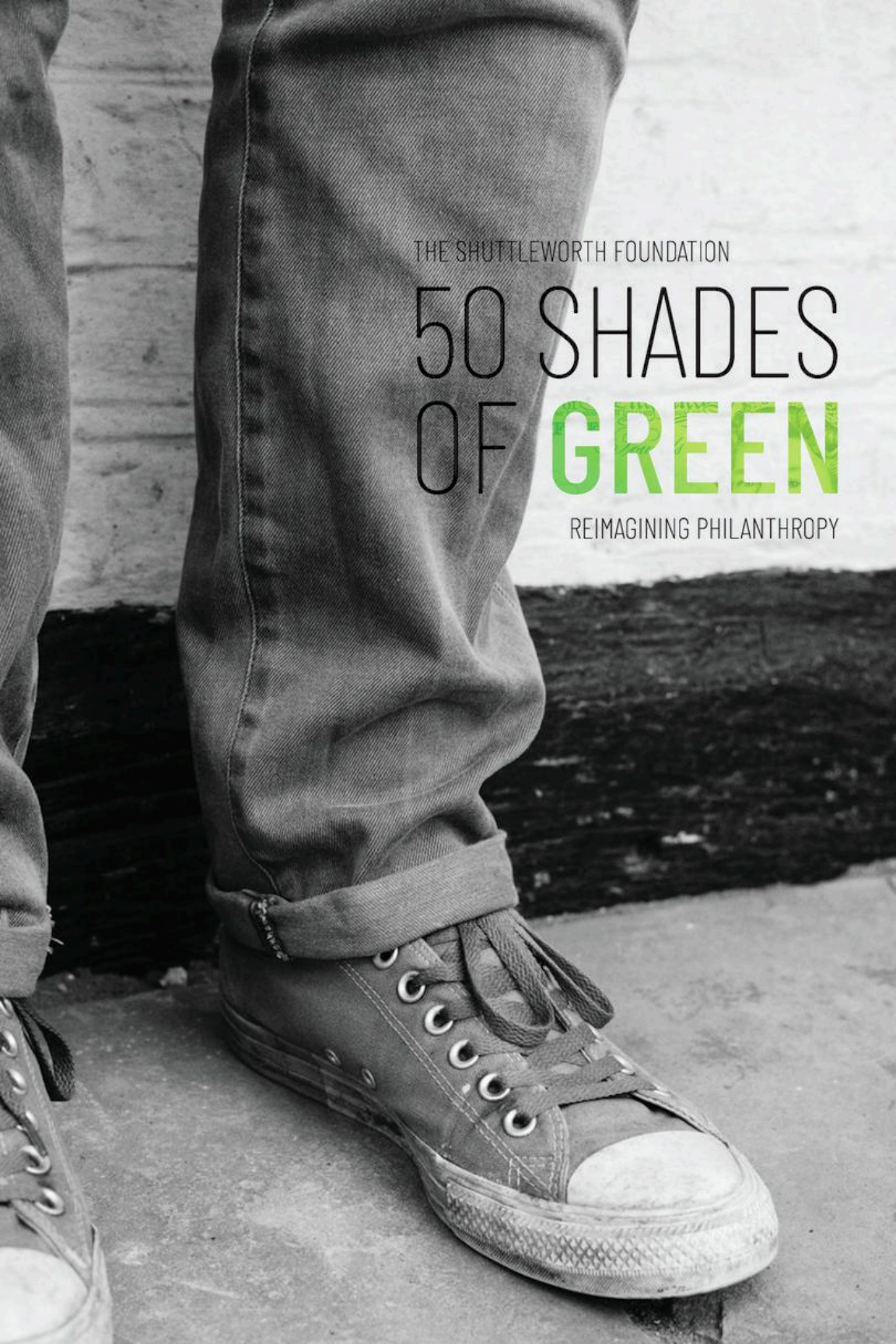
THE SHUTTLEWORTH FOUNDATION
50 SHADES OF GREEN
REIMAGINING PHILANTHROPY

THE SHUTTLEWORTH FOUNDATION

50 SHADES OF **GREEN**

50 Shades of Green

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ABOUT THIS BOOK

In March 2019, Karien Bezuidenhout, Sean Bonner, Kathi Fletcher, Jason Hudson, Adam Hyde, Chris McGivern, Helen Turvey and Jesse von Doom spent a week locked away in a tumble-down sixteenth century farmhouse at the edge of the Surrey Hills called Ridge Farm: a former residential recording studio famed for hosting Oasis, Pearl Jam, Queen, Ozzy Ozbourne, The Smiths, Echo & The Bunnymen, Goldie and countless others.

The group had come together to think about the future of philanthropy, the power of Open, and how these combined can change the world. This book – which explores and documents the philosophy, motivation and learning behind the Shuttleworth Foundation and its fellowship community – is the result.

Barbara Rühling facilitated the Book Sprint, and Fenella Smith cooked delicious food, which kept us going. Matt Reasons organised the travel that brought us all together and delivered us home safely. Cover design by Sean Bonner and copy editing by Raewyn Whyte and Helen Kilbey. Previous works by Andrew Rens and Arthur Attwell have also been included. All photos were taken by Sean Bonner and Jason Hudson.

RECONSIDER EVERYTHING

01
OUR STANCE

The Shuttleworth Foundation funds those who are not only brave enough to reimagine the future, but also brave enough to try. And we challenge ourselves to do the same. When the goal is to create something that is beneficial for the world, rather than beneficial for the market, everything gets reconsidered.

This has become our way of life. Practising philanthropy as a vision, not an intervention, means we question every rule, examine every outcome and discard any process that no longer serves our core mission.

We are the long game – looking beyond today's politics and daily headlines and the technology trends of the moment to those things that are more fundamental, more systemic. Reactionary funding is shortsighted. We are interested in ripple effects that are felt for decades. These are building blocks, not photo ops. We refuse to shortchange our future.

In practice this means we have moved away from giving grants and creating arbitrary metrics for change. We no longer accept project proposals, nor do we drive ideas internally. We have moved towards partnership; towards a shared vision for how change can be effected across domains.

This book will explore these ideas and how we have applied them.

02

OUR STORY, OUR PRINCIPLES

In early 2007, a difficult situation became an exciting opportunity for the Shuttleworth Foundation. Helen Turvey was running a short-term project, tasked with investigating the best way to benchmark work being done on the ground. The findings were uninspiring, with many projects held back by bloat and bureaucracy. None had any lasting effects after the funding ran dry, and it was becoming apparent the organisation lacked leadership that could consider a different approach. Change had to happen.

Soon after, Helen was appointed the new executive director, and Karien Bezuidenhout and Jason Hudson – who were previously working closely together on open source projects for the Foundation – joined her as directors.

Mark Shuttleworth, technology entrepreneur and second-ever space tourist, had established the Foundation in South Africa in 2001. Known for pushing boundaries in every sphere he became involved in, he requested the Foundation be re-modelled with the same premise.

It was a huge opportunity: reimagine philanthropy.

We were given the challenge based on what we had learnt the year before. The philosophy of open source resonated with us beyond software. Open knowledge, policies and practices had the potential to stimulate change and broaden horizons.

Helen had known Mark socially for years while working in the traditional philanthropic sector. Karien had seen him give a talk to school children in a shopping mall soon after he came back from space. Jason had volunteered with the Foundation, installing Linux computer labs in schools. Each entry point was different, but the attraction was the same. We had a genuine sense of opportunity: to use levers for change differently, to make the world better, and to do so systemically.

Anything was possible.

For two weeks, we locked ourselves in a small room in the Cape Town office and came up with a plan. We reconfigured the Foundation and its work around openness and innovation, and rebooted its entire model based on these principles:

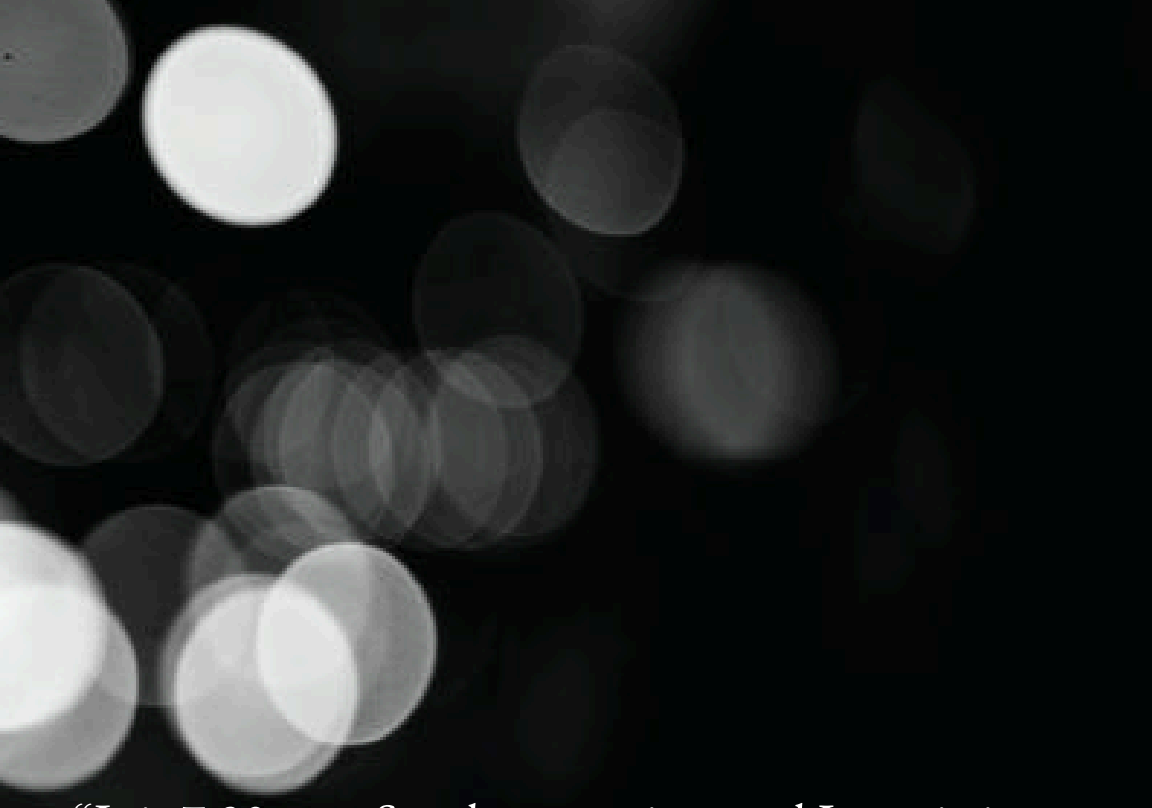
- The world changes quickly – we must be nimble and flexible.
- Openness resists boundaries – we must work internationally.
- Individuals make change – we must support people, not projects.

This sparked a process of gradual but deliberate change. By 2010, the new structures were in place, and our guiding principles had taken a more detailed shape:

- Support ideas where they work best, rather than relocate fellows to South Africa.
- Focus on action-based initiatives to test theories in the real world.
- Encourage bold moves, and learn collectively from failures.
- Seek true innovators who apply existing technologies or ideas in unexpected ways: adding value incrementally effects more change than new inventions.
- Discard thematic funding areas to solve more real-world problems.
- Make bets on inspired brilliance to enable creative problem-solving from the left field, rather than reward past successes.
- Offer fellowship grants covering a reasonable salary to free up 100% of a person's time and attention, and accelerate the research and development process.
- Incentivise fellows to co-invest in their projects, and ensure any resulting intellectual property remains with them, encouraging a deeper sense of ownership.
- Give fellows access to additional project funding to amplify their own investment and move their ideas as far forward as possible.
- Support fellows by investing through the vehicle most fit for purpose, be it for-profit, non-profit or as an individual. Levers for positive social change in society do not come in a standard package. Market forces, charities, governments, universities and many other types of institutions have a role to play.
- Provide a legal, financial, administrative and technical home for the fellows to remove burdens, and allow them to concentrate fully on their objectives. The best ideas rarely come from those with experience of building institutions.

The evolution of our model and philosophy continues as we learn. A decade later, there are 46 Shuttleworth fellows, each bringing their own unique value to the group. Themes include education, health, government, science, social justice and the arts. New fellows are added regularly, or not, as the right fit on both sides is found.

The Foundation is also a fellowship in itself. We all – Helen, Jason, Karien and the fellows – build, rebuild and co-create the evolving iterations. Sometimes the changes are incremental; sometimes moments push us forward in larger leaps. Our first fellows may not recognise the mechanics at play today but would still feel at home, as our values hold true. It is a journey – one we all travel together.



"It is 7.30 on a Sunday morning, and I am sitting in a hotel in Nairobi already deep into commercial analysis of minerals contracts the Somali government may or may not sign with a bunch of multinationals. I wouldn't be sitting here if it weren't for the Shuttleworth Foundation. We are directly advising. These deals are so potentially huge that if we can up a government stake by 3%, they may get another $50 million... I'm here because of Open – we built a profile in an incredibly conservative world because we have published models ... And because we use an open standard, with a community behind it, everywhere we go, we're like a slug leaving a trail..."

JOHNNY WEST (2014-2017)

03

IN PRACTICE

The Foundation is, at its core, an experiment in open philanthropy, exploring alternative funding methodologies and collaborative ways of working. We look for social innovators who help to change the world for the better and can benefit from this model.

We identify amazing people and give them a fellowship. Funding is awarded in two parts – a fellowship grant and project funding. The grant establishes personal sustainability for the fellow by covering their salary for a year, freeing them up to implement their idea full-time. The amount is contracted up front. This helps create an environment in which the fellow is able to experiment from a position of personal security and freedom.

The project funding is an equal amount per fellow per year. Project funding is not contracted up front but is instead unlocked throughout the year as needed.

Fellowship funding lasts a year and is renewable for up to three years. Beyond the funding period, fellows stay fellows forever.

04

WITH PEOPLE

Individuals carry their knowledge and experience with them throughout their lives. The Foundation looks for people who will experiment and learn as they follow their passion to solve a specific problem. Our investment continues to effect positive change far beyond the life of any specific grant.

Projects and organisations come and go. Many ideas do not result in successful outcomes on the first try. This is why we fund people, not projects.

Certain individuals are willing to take a risk for the greater good; they remain tenacious, and as long as we believe in them, and they have the strength to get up and try again, we are confident they will eventually turn their dream into reality.

05

THROUGH OPEN

Philosophically and practically, we default to Open. We subscribe to the Open Definition – where data or content is regarded as open if anyone is free to use, reuse and redistribute it, or combine it with different materials.

This inspires us to be open to collaboration and contributions from outside our immediate group, inviting many to reuse our processes and make them better. Combining openly licensed intellectual property with open practices enables and encourages others to experiment in their own environments – to localise, contextualise, translate, adapt and spread the tools and methodologies we develop well beyond our own reach or imagination.

We understand that neither does every piece of content in the world have to be openly licensed, nor does every process have to be collaborative. But we choose to stand closest to extreme openness. We serve as a counterbalance to the prevailing default of "completely closed", and push for and establish new norms. We also exist as an example of the power of openness in the philanthropic world.

TOWARDS A SHARED POWER

06

SHARING POWER

It's time to re-examine philanthropy – in particular, the roles money and power play in the relationship between funders and those they fund.

Traditionally, funding relationships centre on money. Funders have money and set the terms for getting it. Applicants tell funders what they want to hear in order to get that money, keep it, and then get more of it. This pursuit of money slows momentum and distracts from the mission.

Although good does come from this model, inevitably the funder assumes an understanding of the problem and ends up influencing the solution. But if funders had all the answers, they could just hire project managers and execute their plans themselves. This is the paradox of most funding models: the change agent has the best experience to address the issues but ends up having to execute within the world view of the funder.

At the Shuttleworth Foundation, we believe the central idea of empowering social change isn't just funding it, but broadly redistributing power. We structure our relationship with fellows as a partnership, so they have the power to implement, test and refine their ideas, not ours. We back them to make the right decisions based on their world view and experiences. This is a deliberate process of empowerment, helping fellows gain confidence, think bigger and build towards their vision.

A relationship of mutual trust and respect needs to be built between funders and those they fund. This is often an uncomfortable process, and not always welcomed by either party, but it is important to have the tough conversations, with honesty and care. It is these very conversations that enable growth, increased resilience and the kind of power we need to effect change.

Funders must have trust in those they fund, and vice versa. It is central to a fellow learning and evolving over time, and to their contribution to collective power as well as their own. Everyone – funder and fellow – needs to be able to make mistakes, iterate and learn, but this only works if we all commit to authentic engagement, learning and evolving in a bilateral manner. Trust, based

on sharing knowledge of what works and what doesn't, creates bonds forged and reinforced over time.

To this end, we offer fellows a support system and the connections they need to acknowledge the power they hold, to share in the collective power of the fellowship, and to learn how they can evolve their ideas – and themselves – to hold power and be leaders in the spaces they occupy. Open is the mechanism that enables this trust. By centring on openness, we build the kind of power that can outlast founders, projects and financial ebbs.

07

OPEN IS POWER

In traditional funding models, intellectual property is often considered an asset to be held closely, in case it must be sold at a later date to recover investment funds. Open models recognise this is problematic. At best, the traditional approach creates products that can't be used by others, and ideas that can't be built upon. At worst, it wastes everyone's time and money when the project gets shelved.

Keeping things secret or locked means you are the only one who can work on them and develop them. When things are opened, the potential is multiplied exponentially.

The creative worlds of art, writing, fashion and music have long borrowed and referenced previous works, layering intent and meaning, and building on what came before to drive new and interesting perspectives. Open source software works in much the same way, making the original work a basis for innovation, progress and thinking, rather than an end in itself.

What happens if you apply this approach to areas outside of software? The results have been surprising. Open can unlock the energy needed by a fellow to bring about their vision.

In the early days of the Foundation, Rufus Pollock initiated an open source project called Annotator, largely motivated by a desire to mark up Shakespeare on http://openshakespeare.org. Two other fellows, Dan Whaley and Seamus Kraft, picked up Annotator and moved it forward in their own projects – Dan using it as the backbone for Hypothes.is, a decentralised annotation platform, and Seamus bringing it into the realm of government and policy creation. The project evolved and rippled through the fellowship into the world; each time in a different context.

Sean Bonner's work on aggregating radioactivity data with Safecast highlights another benefit of Open. A volunteer-created information sheet about the bGeigie Nano Geiger counter has been completely translated into more than 20 languages – an initiative driven entirely by the community, without any direction from Safecast. A top-down approach to that same

effort would have been considerably more time-consuming and infinitely more expensive.

Adam Hyde's Coko project is replacing proprietary scholarly infrastructure with open source software. Within one short year, the community has built nine separate publishing platforms, ranging from journal submission systems and micropublications to content aggregation platforms. While the Coko core team built two platforms, the other seven came into existence because of the sharing of this common infrastructure. This is proof of Open as a powerful multiplier of effort in the fight to improve academic publishing systems and processes.

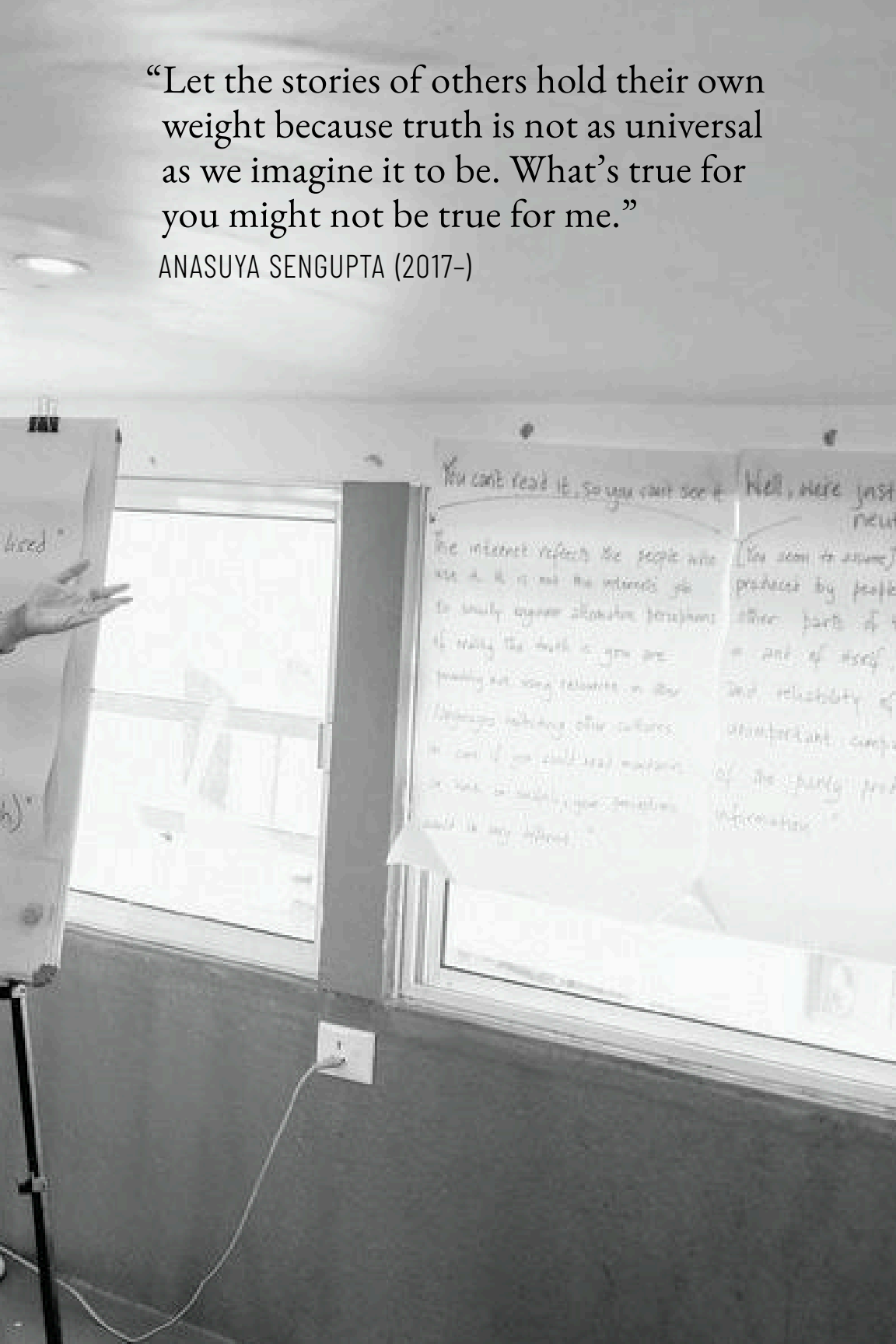
The more we share our thinking, working, practices and outcomes, the better. Releasing open information allows other organisations, project implementers, funders, policymakers, change agents, advocates and academics to engage with and learn from what we have done. This invites feedback and collaboration with other organisations and funders in ways that were never previously possible.

The Foundation's advocacy for and commitment to Open began with software but has spread to justice, art, health, science, hardware, money, education and the environment. By supporting fellows within their communities, these examples show how Open can be a powerful tool. We replicate this open approach within the Foundation itself, by connecting individual fellows from disparate fields to a supportive fellowship community.


Affirmation
Antagonism

"Let the stories of others hold their own weight because truth is not as universal as we imagine it to be. What's true for you might not be true for me."

ANASUYA SENGUPTA (2017-)



08

CULTURE OF COMMUNITY

Often, funders have the idea they can "create a fellowship community", as if this can be constructed from the top down. Building community is a co-creation experience between the "engineers" who decide to begin a community and the "citizens" who will participate in it. Creating and populating the community space happens all at once, and the co-creation process leads to ongoing and co-owned stewardship as the community changes and evolves. This is a shared responsibility.

Finding the right people to enter into this kind of relationship with a funder is difficult. It's hard to see past the sales pitch and find partners active in the worlds you wish to change, with an approach you can trust. To that end, we believe it is best to enable people whose lived experiences suit the challenges they are trying to overcome. A member of a community uniquely understands its challenges better than an outsider is able to. It is not our job to tell them how they should approach the problem but instead to help them build the power they need to effect change.

In the fellowship, we strive for as little hierarchy as possible. Where it exists, it exists with respect, empathy and a clear understanding of roles. For example, there is a clear funding relationship between the fellow and the Foundation. The fellow is responsible for the plan, for determining how that money is spent and what indicators for success might be present, and for communicating that back to the Foundation. There is clearly a power dynamic at play, but it is designed to quickly yield to a partnership in which successes and failures are shared. These are also shared with the community, through various means; this turns individual experiences into community learnings, and builds some of the bonds of fellowship.

The community is reinforced weekly for all active fellows in a web-based chat called "Fellow-up", where everyone talks about what they are working on or struggling with that week. One fellow starts, and when they have finished their check-in, they nominate someone who has yet to speak. This not only serves to update everyone but also enables collaboration and supports the notion that the community is responsible for moving things forward. There is no leader or

moderator. Fellows ask questions and suggest people from their own networks who might be helpful to others.

All fellows have an account on the same chat platform, and this provides a space for shared interests and community beyond regular check-ins. The platform hosts a channel for aspiring vegans to share recipes and tips, and a plank channel for bragging about planking times. There's a "helpmeout" channel connecting those with a question with others who have a solution. "Softwaredev" provides a space for communal tech support, and there's a travel channel to facilitate real-world meetups with one another, at home or when fellows find themselves in the same distant corner of the world. It's about people and building relationships, not some kind of forced fun imposed by a funder. This non-hierarchical structure is also a key feature of a twice-yearly event open to the whole fellowship called the "Gathering".

True fellowship only works with community. At times it's difficult to see the difference between fellows, alumni and the Foundation. There are different roles, but all inside the same co-owned space. All part of the fellowship, all part of the community. These lessons were learnt over years of evolution. Top-down engineering mistakes were made in the early days of the Foundation; these became opportunities for learning.

One of the early learnings was that new fellows were overwhelmed when they first joined the fellowship. Trust takes time, but there's nothing wrong with helping it along.

The idea of a "buddy" was introduced, and new fellows were paired with current fellows in an effort to build relationships and allow a safe space for questions. Success varied because of time zones, chemistry, and other factors. In time, the buddy system evolved, and Jesse von Doom, who became a fellow in 2014 with his project CASH Music, which provided open tools and infrastructure for musicians, now serves as buddy to all new fellows. He meets with each new fellow to learn about who they are, let them know that "yes, this really is what it seems", gives them crucial tips and connects them to other fellows. By the time a new fellow attends a Gathering, they easily slip into the community and feel at home.

09

COMMUNITY MEANS CO-OWNERSHIP

Socialising has been cemented into the culture of the Gatherings. One of the most significant moments in this process happened in Toronto when Sean Bonner, whose fellowship revolved around the environmental monitoring and open data project Safecast, introduced a game called "Werewolf" after dinner one night. This subsequently grew into a ritual played out at every Gathering.

Werewolf is a simple game. A moderator secretly assigns roles to people sitting in a circle; one card and you're a villager, another and you're a werewolf. Over rounds of negotiation, discussion, and outright lying, the villagers try to discover the werewolves, and the werewolves try to eat the villagers.

The specifics of the game don't really matter. (But you should try it. It's fun.) What matters in the context of the Gathering is that it provides a recurring communal experience, supports spectators and side conversations, and is easy to walk into. People can choose to participate as much or as little as they like. It also provides an outlet for competition, keeping that further from the work. Most importantly, this was the first time a fellow had created and held a space without prompting from the Foundation – reflecting the commitment to no hierarchy and demonstrating that the Gathering was about collaboration.

Werewolf was the first of many events that have become a mainstay of the Gathering, and it is an example of how we are more than just colleagues. Social change is exhausting and isolating, and often there is little reward. Building memories together is a critical act of support in those moments of connection.

Establishing a community with expected norms, well-understood roles and responsibilities, and true agency for all removes egos and builds bonds. If done well, the difference between the engineers of a community and its citizens will be blurry. If done very well, the difference becomes meaningless. If, over many years, each community member is equally part of the co-creation process, then who are the engineers and who are the citizens?

TRUE FELLOWSHIP

10

WHO IS A FELLOW?

The Shuttleworth Foundation supports individuals who are brave enough to reimagine the world, and brave enough to try to change it. Finding those individuals is necessarily messy.

If the preexisting conditions for change agents were known, we could simply place a job offer in World Changer Weekly and find fellows by checking off a list of required skills. The reality is there is no mould, and the search requires a little bit of magic. We sift through hundreds of applications, giving each its due, looking for the rare person who has the vision, the ability to articulate that vision, and the skills to make it reality. They also have to understand the value of the fellowship. We are primarily looking for those who haven't already found their champion sponsor.

Fellows are not bound by any specific level of education, number of years of experience in the workplace, location or nationality. They can work alone or have an organisation, which can be for-profit or not-for-profit. They might be building software or hardware, or creating policy, or none of the above. Simply put: a fellow doesn't fit into any standard template. We have to trust the magic – and we are getting better at it.

Past victories are no guarantee of future success, so while it's nice to see a list of accomplishments, we do not make a decision based on what's already been done but rather on what we feel can happen. Proven expertise is nice but is no substitute for vision and leadership. We make bets on motivated potential rather than on history and achievement. Fellows are dropouts and doctors, students and professors, enthusiastic upstarts and seasoned veterans.

The fellowship can be for anyone, but it is not for everyone. It involves brutal honesty, learning through mistakes, embracing the uncomfortable, and learning from failure as much as success. It requires a deep commitment to a vision and an ability to move forward and adapt. We seek fellows who embrace their own power, take initiative, create their own plans, evaluate the success of their current approach and respond in real time as appropriate. A sense of community is crucial, and each new fellow adds to it, so we seek those who will

bring an open mind and a willingness to share. Some in the fellowship refer to this as the "no-assholes" criteria.

Integral to the fellowship is the idea that when we say yes to a potential fellow, it is 100%. There are almost no conditions imposed. Some of our fellows do their work at great personal risk: activists working in legal grey areas, conservationists braving dangerous environments, doctors in war-torn areas. This risk does not glamourise or prioritise these fellows, nor does it sway our decision. We strive to ensure the risk is understood clearly by both fellow and Foundation. We are clear about our values, and we discuss whether funding will place them in increased danger. Beyond that conversation, the choice hinges on the same question as with any other fellow: is this an individual who can enact systemic change in the world through their work? When the answer is yes, it is 100%.

11

CONNECTING

The application process is designed to be as lightweight as possible. It starts with a video and a form (page 79) that sets six essay subjects asking clean, simple questions that carve a narrative and act as a basis for conversation and partnership. They are:

1. Tell us about the world as you see it.
2. What change do you want to make in the world? (A description of the status quo and context in which you will be working)
3. What do you believe has prevented this change to date? (A description of what you want to change about the status quo, in the world, your personal vision for this area)
4. What are you going to do to get there? (Describe the innovations or questions you would like to explore during the fellowship year)
5. What challenges or uncertainties do you expect to face? (A description of what you actually plan to do during the year)
6. What part does openness play in your idea?

These questions create space for applicants to share their vision and are designed to help everyone understand the essence of what, why and how a change will manifest. Prospective applicants often ask us to narrow down the parameters for applications and be more specific, but we have no plans to change the current format. We want to be surprised and intrigued by applicants. No matter how unconventional the idea may be, we find it is useful for applicants to think through the vision and implementation, regardless of the outcome of their application.

A key component is the application video, intended to offer a glimpse into the person behind the application. Some applicants worry that we expect some epic Hollywood trailer with a voice-over by Morgan Freeman. This is not the case. The video production quality only matters as far as being able to hear and see enough to understand the message. Applications are not public, although applicants are free to share theirs as they wish.

Helen, Karien and Jason review every application. It is an all-consuming process – rightly so, given its importance.

After initial review, applicants are selected for a deeper interview, framed as a conversation to explore ideas in more depth. We ask hard questions up front to help find the right fit. Over time we've become bolder about this – people trust us with their dreams, and we take that very seriously. Blunt conversations honour that. Where there is no fit, we've learnt to be upfront and say so directly, along with our reasons.

Jesse von Doom's application video speaks to the importance of both the video and the interviews in the process. When reviewing videos, we ask ourselves "Is this someone we believe has the passion and drive to pursue their idea and who can also inspire others to join their cause?" Jesse's initial video, now a comic legend in the group, was not funny at all. In fact, it was hopeless. It was shot in a dreary grey concrete room. Jesse, sitting in a poorly lit corner, spoke ever so slightly too slowly. He seemed despondent at best; more likely defeated. This was not someone we felt could rally himself, let alone anyone else.

We resolved to pass on him, but after being urged by a trusted fellow to reconsider, we agreed to an interview. It was a wholly different experience. We got to meet the real Jesse – and his passion, determination and potential to change an inequitable system was clear.

We learnt to look beyond presentation and really dig for substance. Even the most passionate and committed people feel disheartened from time to time. Trying to change the world can be hard on a person. The art lies in recognising when someone deserves a closer look.

The final selection is made from a shortlist compiled after completing all interviews and internal debates, and checking references. In the early days, Mark Shuttleworth, the founder philanthropist, reviewed all of the shortlisted applications and chose new fellows. As we grew, it became clear that this was no longer optimal. The decision process was as important as the decision. Inspired by the fellowship itself, we now invite a one time honorary steward to make the decision. Having a different person make this important call in every round ensures constant rejuvenation, and serves as an independent check against potential bias or nepotism.

Saying no to applicants is not fun. Each one commits a part of themselves to the process, and they will be disappointed, so we try to alleviate the tension by making and communicating decisions as quickly as possible. Applicants receive honest – sometimes uncomfortable – feedback on their application and the

reasons for our decision. When true, we tell people we believe they have fellow potential and invite them to reapply in the future. Eleven of the 46 fellows to date were unsuccessful in their first application.

After months of work, our reward is the joyful moment when someone is told they've been selected. They will be welcomed into a space we cherish and protect. The fellowship has been shaped by those who came before and is moulded more by each new fellow. As every fellowship is individual, so is every reaction to good news at the end of the process.

Astra Taylor did her "happy dance" when we called to invite her into the fellowship. She had spent her life fighting hard for social change, and we were offering to join her. The "happy dance" was real. Others are wildly professional on the phone and later let out the emotion over email. It's a special moment when we accept someone who has applied multiple times, finally seeing their efforts pay off. Alasdair Davies had been given a Shuttleworth Foundation sticker years before he became a fellow, and chose not to use it before making his initial application. That application was unsuccessful, and the sticker stayed in the drawer. But he took the feedback and promised himself that he would keep honing his vision. On the third attempt, he got in. The sticker clings to his laptop to this day.

We have worked hard on making the process a positive experience. We own it in a personal way and want to connect as humans. We consider an applicant's personality, how they would affect the group dynamic, whether they share and reflect our values, and if they represent a diversity of context, culture and perspective. We look for people who will expand our horizons, evolve our view of the world, and truly benefit from the shared wisdom and experience of the fellowship.

12

REACHING AGREEMENT

Having money does not equate to knowledge.

Not having money does not equate to ignorance.

Unencumbered by misconceptions of how funding "should" happen, the fellowship is a programme that shows true and sustained change by focussing on people, not just donating to their projects. It's about creating the conditions that allow fellows to experiment, and even fail, as they grow towards long-term success. Every process is built to be something useful for the fellow, assuming a lifelong partnership.

Hundreds of applications from potential fellows arrive each cycle. We review every one of those applications individually and spend a month interviewing applicants, whittling them down to a shortlist. It's a long process, handled with care.

Chosen applicants receive an invitation to talk and, if agreement is found, to figure out the final terms of engagement. In earlier days, they would see a 24-page, arduous contract full of legal jargon and specific definitions. Now they get a simple letter of agreement that defines the proposed working and personal relationship in human terms. Making the letter friendly and lightweight was an idea inspired by the agreement Arthur Attwell created when assembling a team for Paperight, the project at the core of his fellowship. The goal was to reduce apprehension and inspire excitement about the fellowship, rather than starting the relationship with an anxious legal negotiation.

Andrew Rens, Open Counsel (and our first fellow), had a very different initial reaction to the proposed new agreement. After a call to discuss the draft acceptance letter, he offered a blunt, fiery and passionate argument against cutting a number of pages, including those covering the definition of Open and the privacy policy. By the end of the conversation, Andrew's case was clear. But he was also in agreement about the value of a simple letter welcoming a new fellow into the fold.

The letter and agreement (page 82) now total nine pages and define the partnership, explicitly detailing commitments to one another and to the wider fellowship group. These commitments include an outline of the Open Requirements (page 86) expected by the Foundation and are the heart of the relationship built with all fellows. The letter is a legal agreement, an introduction and an invitation.

There is an inherent trust in the Foundation/fellow relationship. The fellow leads the way towards the fulfilment of their mission, but the Foundation team has much to contribute and does not hand over power without reciprocal expectations. This use of power is deliberate. Value is created from money and power in the relationship, but it also grows beyond the individual fellow when each lesson learnt is shared with the community. The idea is to evolve and grow together – not just over the span of a financial relationship, but over a lifetime. This is the fellowship we build together.

Honesty, sharing, mutual respect and care are expected in a fellowship designed to offer lifelong support. These values are incorporated into all interactions – both virtual and face-to-face. The acceptance letter is the start of the relationship with a new fellow, modelling these values from the very beginning.

13
WORKING TOGETHER

Money matters. It unlocks additional resources that can free up energy to experiment and engage with challenges in a much more substantial way. But funding is just one of the tools that can unlock more positive actions. By co-investing rather than donating, we purposefully put the Foundation on the same level as the fellow, establishing a true partnership in support of the shared vision.

In the current iteration of the fellowship, funding comes in two parts. The first, the fellowship grant, covers the cost of the fellow's time for a year, to establish personal sustainability and free up their time and attention to focus on implementing their idea full-time. The amount is as close to a reasonable salary equivalent as possible, depending on each fellow's circumstances. The fellowship grant is contracted up front and guaranteed for the year. This helps create a sense of freedom, allowing the fellow to experiment.

The second part is project funding. This is a budget given to all fellows equally for the implementation of their idea. Project funding is allocated per fellow to avoid competition, but not contracted up front. Instead, it is unlocked as needed through project pitches. People pay closer attention to the relationship between expenses and outcomes when they have invested more than just their time and effort. To this end, a fellow has to sacrifice some money from their fellowship grant to unlock ten-fold matching project funding from the Foundation. So $100 invested by the fellow is matched with $1,000 from the Foundation, resulting in a pitch unlocking $1,100 co-invested in service of the fellow's vision for change.

The purpose of the project pitch is to help fellows systematically consider the relationship between their actions and their articulated vision for social change. How might an activity, along with the associated cost, contribute to change or learning? What is necessary to implement it effectively? What value will it create in exchange for the time and money spent?

The objective is not for the fellow to convince the Foundation it is the perfect action to take. Uncertainty is an integral part of finding new solutions. Being deliberate about identifying and tracking this uncertainty creates opportunities

for discovery. The process is designed as a conversation between the fellow and the Foundation to outline the motivation and examine potential risks and benefits.

It is rare for a pitch to be dismissed outright. Pitches are moments in a continuous stream of engagement between the Foundation and the fellow. Pitches may be unconventional, but because of the partnership, there is a shared willingness to take the leap.

There are no preset restrictions on spending categories. Different fellows value and need different resources at different points in their trajectory. The process is designed to help the fellow figure out what matters most in reaching their goals. Do they need to cover overheads, equipment costs, travel or staff? One fellow needed a truck to reach remote locations and install equipment. Another pitched for ergonomic office chairs for their team who were working long hours in front of computer screens. Some pitch only for travel and bringing people together, some for staff salaries, and some only need overheads covered. The Foundation's approach is to counsel, question, trust and review – not control.

Of course this carries some risk. Money can be wasted, but we mitigate risks by ring-fencing time and money. Each fellow has the opportunity to apply for up to three consecutive years, one year at a time. Within that year, each fellow has access to a set amount of funding, allowing the Foundation to determine the exact size of the financial risk it is willing to take. These limits create an opportunity for review and reflection on both sides, along with natural exit points should the partnership no longer work. We recognise there is a certain hypocrisy to imposing such limits on fellows when we aim to build lasting relationships centred on trust. But having these limits allows greater freedom to take risks within these confines.

Sometimes reapplications are not successful. It is a difficult decision to make, having come to know the individual and their work. It's a tough time for fellows too, and in the weeks leading up to "that date" in the calendar, there is a noticeable air of apprehension. Astra Taylor said of her experience, "I was far more nervous about my reapplications than my initial application. Now I know what I'd be missing if I weren't offered another year. As a result, I was even more delighted the second and third time I got a call to say I can hang around on the island a while longer."

Even when reapplications aren't successful, fellows are invited back to our space, included in the community, and given every opportunity to continue their participation. Every fellow brings a unique and lasting value to the fellowship.

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TAKING THE LONG VIEW

Funders can be obsessive about metrics and demand to see progress happening in highly specific ways, which may – or may not – be applicable to the work being funded. Some funders use language that fails to correlate with the problems the work is trying to solve, or they attempt to jam projects into preexisting spreadsheets. Almost always, this serves an internal metric created for use by people far away. It is a proxy treated as absolute, unconsciously or otherwise. At the Foundation, we take the long view, and look at individual, shared, and collaborative success.

Esra'a Al Shafei's CrowdVoice.org has 30,000 highly engaged users, including human rights lawyers, teachers and journalists. It's an important service giving context to sensitive issues in the world's most dangerous and complex places. Traditional funders ask, "How long will it take before there are a million users?" That's completely missing the point. More users means appealing to an entirely different audience – a very real example of how the wrong metrics can harm a project and derail the intended change.

Unfortunately, many still think of scale as success and that bigger is always better. This thinking leads us to measure growth on a balance sheet or count the number of heads in the staff room. But building something bigger doesn't mean serving the mission better, or achieving greater impact. These are purely vanity metrics.

Greg McKeown introduced the idea of the clarity paradox.[1] This proposes that when we have true clarity of purpose, it leads to success. With success comes new opportunities, leading to new options and prospects. These new possibilities diffuse efforts that undermine the very clarity that brought success in the first place. Using scale as a metric of success may turn into pursuit of scale, which can damage the ability to create the change originally sought. To avoid this paradox and maintain focus, scale should be thought about and planned explicitly as a strategic choice, instead of a default.

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1. Greg McKeown (2012): The Disciplined Pursuit of Less (https://hbr.org/2012/08/the-disciplined-pursuit-of-less)

So how do we measure success?

Determining the right measure is messy, hard and sometimes impossible. Impact is complicated. It does not adhere to implementation timelines, and often involves important factors that extend beyond anyone's control. There is no single measure of success.

We address this problem by working with fellows to define their own terms for success. We then use those terms as a measure. We ask questions, of course, to challenge their framing and bring in broader thinking, but it is the fellows who define and evaluate what their own successes look like.

Change doesn't happen overnight – it comes in incremental steps. Measuring total success is impossible. Instead we ask if each step towards that vision was successful, and on what terms? This can be done in a way that has real meaning.

It is constant reevaluation, not a static metric that allows fellows to course-correct iteratively. Our approach turns both success and failure into a process of reflection everyone learns from. Intentionally sharing progress, successes, failures and modulations of a fellow's trajectory is invaluable.

Success for us is not an all-or-nothing measure. If what we genuinely seek is change, then we need to think in terms of iterative steps towards that change and what we learn with each step.

The more powerful measure of success is how long fellows remain committed to and actively working towards their vision. Social change is a long process, and for this reason, it's important to give people space and resources to break down the systems they target – and build them back up – with a strategy to help them do it for as long as possible. This is why we believe funding should be about the person; about helping them become resilient enough to effect change over a lifetime.

Arthur Attwell worked tirelessly on Paperight for years and had to make the heartbreaking decision to close it down. Most would see a project's death as failure; we don't. Arthur was absolutely a successful Shuttleworth Fellow. He introduced important new conversations in the publishing world and carries many of his learnings into new enterprises. He is still pushing for change in the publishing industry and increasing accessibility to books. He remains a

committed, engaged and highly valuable member of the fellowship. This is successful iteration.

In the context of the fellowship, failures are recycled as shared learnings. Just as importantly, large-scale failure leaves behind scaffolding that others can build on. In this sense, current failure is a future shortcut for someone else and enables inter-generational progress, building on the work of those who came before. This is the reason we make intellectual property open.

The work we have done on ubiquitous, affordable access to telecommunications and educational resources has made a significant contribution to shifting policy and practice. It hasn't happened within one fellowship year or a single project plan. It has taken time, iteration and experimentation, and it is not always possible to see how today's work contributes to tomorrow's successes. Each failure is a potential building block.

One of the first fellows, Mark Surman, gave a flash grant to Jesse von Doom, who then successfully applied for a fellowship. Shortly after, Jesse suggested Sean Bonner apply, and gave Astra Taylor a flash grant. Sean was offered a fellowship to work on Safecast, and the following year Astra accepted a fellowship to work on The Debt Collective. Both Safecast and The Debt Collective have had significant social and political impacts, but we could never have known that Mark's fellowship revolving around open philanthropy would have led us to them.

Nurture a successful culture, and you attract others of the same mould – but there is a need for caution. Like-minds thrive off each other's views; single minds grow blind to ideas. For the fellowship to blossom fully, it must diversify into new geographies, listen to new perspectives and uncover new concepts. We pursue the right fit, but we aren't building clones.

NURTURING COMMUNITY

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A MARRIAGE OF MISFITS

Finding ways to sustainably recycle electronics, decolonise the Internet, create affordable conservation technologies, make open medical hardware and develop openly accessible cell cultures – these are some of the challenges fought by fellows.

To take these battles on with integrity and to continually invent, evaluate, reinvent, convince and solve problems – while no one else has any idea what is being talked about – makes the journey long, exhausting and lonely. It takes a special kind of person to embrace this, and to make it their life.

It's no surprise that the fellowship has been fondly described as a "collection of weirdos". One reason the community works, is that these misfits have found each other and realised that they aren't so alone after all. The fellowship is a place to find commonality. It is an opportunity to share stories, learnings and experiences that have been gathered along the way; to learn from one another. But it can often take time for fellows to come in from the cold; to sit around the fellowship hearth and know they are among friends.

All fellows find the community overwhelming at first, but it's part of the process – and completely expected. It takes time to build confidence in the group before a new member of the cohort can feel comfortable and truly let go. But once those bonds are in place, the environment of trust makes sharing common experiences easier.

At a recent Gathering, a new fellow described a tricky and potentially volatile situation in their community: a significant clash of personalities with a volunteer. Removing that single toxic personality was the easy choice, but it wasn't an option. Long-term personal relationships between the volunteer and other highly valued members of the community meant that if one was removed, the rest might follow. There was no simple resolution, but just having a safe place to talk about the issue led to others discussing similar situations. It was incredibly helpful to the fellow and, of course, to others.

But the fellowship isn't just for help. It's a testing ground for new ideas, and these will all get a thorough grilling – and with everyone's best intentions at

heart. Eventually, fellows feel enabled to try things they never would have dreamt of attempting before.

While creating CrowdVoice, a platform that harnessed the power of crowdsourced media to contextualise social movements, Esra'a Al Shafei found her experience with the Shuttleworth community to be valuable in more ways than one.

"I have a sense of belonging," she says. "It sounds clichéd, but to do this in Bahrain is very isolating. To do this anywhere else, I would not have that support network. A lot of the foundations we work with exist to commit something to their investment committee. You have a programme officer to respond to, auditors to respond to, financial reports to submit. Nobody asks, 'How are you?' That's something the fellowship provides. The group cares about you as an individual.

"When my fellowship ended, I thought at first it was going to be another one of those experiences I would just move on from. But I continued getting invites to the in-person Gatherings, and the community keeps coming back to get energised and renew a lot of the friendships. We may not agree on every single thing, and there are definitely controversies involved, but as a whole, this group of fellows and team genuinely cares, and that's what makes the fellowship so meaningful.

"Apart from the technicalities, you immediately understand why people are fellows. It's not just because what they do is open software or hardware, or open this or open that. It's because they come with an open mind and want to solve what they perceive as a grave injustice – it's a group of people struggling for real progress, accessibility, social justice. I think that's a recent transformation of what the Shuttleworth Foundation means."

It's a gradual transformation Esra'a has observed – and been part of – since she joined the Shuttleworth community in 2012. Then, she felt the concept of Open as driven by the technical definitions used by the software and hardware communities that made up the majority of the fellowship. But as we have shifted focus to cover different social challenges, each new fellow has brought a different perspective. Over time, the conversation has expanded.

"The fellowship was really what made me understand Open from a philosophical standpoint," says Esra'a. "Why Open, how Open, to whom is it

open and by whom is it open – these are all questions I had never considered before.

"Now we have people like Anasuya [Sengupta], Astra [Taylor], Tiffiniy [Cheng]... every single one of them looks at Open completely differently. We see it as a movement, but within that, each individual has a different angle. No one has or wants a monopoly on any idea or concept."

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GATHERING TOGETHER

Every six months, the fellowship comes together in person for a working week to share ideas, ask for help, build bonds and find common ground in the work we all do separately. It is an environment of openness and trust, with consent, respect and care central to its design. Each Gathering is a microcosm of the way the fellowship works all year round; a support system designed for and with the fellows.

All Foundation staff and current fellows participate, with past fellows attending as their schedules allow. Every Gathering takes on a life of its own, but the one constant is that all participants are equal in the room. By removing hierarchy, partnership is created and shared between everyone, with the whole community acting in service to each other.

The Gathering is not for creating a work product, nor is it for bragging about accomplishments. Everyone brings and shares expertise, experience and wisdom, and takes away new ideas, reflections and different perspectives. It is a place for personal and professional rejuvenation within a network of like-minded and generous colleagues. Gifts are exchanged, friendships are renewed and stories are shared; laughter and catharsis are experienced in equal measure.

There are a few basic rules (see the full list later in the book): everyone who takes part must commit for the whole week, be fully present for every session and engage with every attendee. To allow the group to fully focus on each other, no families, co-workers or guests attend. For deeper relationships to develop and grow, the participants are shielded as much as possible from the complexities of work and life outside the Gathering.

Each participant offers a unique perspective. Some bring past experiences of the fellowship and reflections on life post-funding and share their insights to help current fellows along their own paths. New fellows bring stories from lives outside the Shuttleworth Foundation community, and add a new dimension to our thinking.

It took a long time to find the current format. When the fellowship evolved from a residential programme to one that was virtual and distributed, it felt like

something had been lost. In an attempt to recreate the residential camaraderie, the decision was made to bring everyone together, in person, for two days. The first Gathering.

It was a small group, some of whom already knew each other and worked in the same fields. Yet there was clear value in being together, and this was vital to building true fellowship. As new fellows joined remotely from all corners of the world, the face-to-face time became more engaging and increasingly pivotal to establishing real community. Eventually, the fellowship incorporated two week-long Gatherings per year, with all fellows attending.

But the evolution and format changes didn't stop there.

The Boston "me" party

In May 2013, the MIT Media Lab offered to host us in Boston. This was our seventh Gathering, and the inspirational location and compelling schedule promised much. But the reality left us cold.

The physical space was a massive, impersonal area with glaring white walls; far too big for the small group. Dimmed lights and a large screen did little to warm the room. At the MIT Media Lab there are always interesting students and faculty happening by, but the people popping in and out proved disruptive. The experience shifted focus from the Shuttleworth community to the broader world and sacrificed depth of engagement for superficial breadth.

The format also failed. Each session started with a presentation, introducing a feeling of competition. The misplaced focus disturbed the sense of belonging and community that was the original purpose. Questions and insecurities were hard to express, and the sessions forced each fellow into me-first thinking. Other fellows were behind their laptops refining their own presentations rather than being engaged.

While every component of this Gathering was designed with positive community and camaraderie in mind, it was clear that this format no longer served those objectives. The programme and people were suffering because of it. Small changes were made immediately, but it took 18 months to develop a new format that fostered the desired environment.

Get your Gunner

Trusted expert in collaborative events Allen Gunn – Gunner as he's more widely known – was brought in to help. A long time collaborator, he advocated the need to shift the focus in participatory events from organisers and panellists to participants. Along with some tools and tips, he helped redesign the event from scratch.

The first step was to choose a location that was away from any partners or significant locations, with a venue that had space for people to hang out and find each other outside of the formal agenda.

Next, presentations were banished along with the use of any devices during sessions. In order to build real relationships, conversation and connection in the room were prioritised. Gunner worked with each fellow to design collaborative sessions in advance, identifying topics that would be most useful to them. Fellows owned their own sessions and were encouraged and empowered to ask for help from others. We broke up into smaller groups to create space for more active participation. Finally, Gunner participated as an outside facilitator, tasked with creating an appropriate structure through a loose agenda.

In Malta, October 2014, the group was introduced to this new format.

The change surpassed all expectations. It established the purpose of the Gathering as more important than any specific practice or outcome, and that the format could – and should – evolve. The focus was on learning, and the community became a resource for all to share.

Gatherings would no longer be about having all the answers. By moving towards participation and collaboration, the sessions placed fellows in a landscape that allowed them to get lost.

Participants were immediately more engaged, not only in sessions but also outside of the formal programme. A space grew for human connection within the context of a specific problem set, naturally leading to further conversation and moving easily between the specifics of a domain to a higher order of challenge. It changed from "how am I solving this?" to "how are we solving this?" and, over time, to "how do we solve this together?"

"Many fellowships end when [funding] ends – that's it. You don't go to meetings and you aren't invited – you become part of the mailing list and it ends there. I'm not obliged to go to the Gatherings, but it's where I get energy and inspiration, and I solidify my commitment to Open. I still feel part of this."

ESRA'A AL SHAFEI (2012–2015)

The format requires a leap of faith from new fellows, but the fellowship is there to catch them. Being vulnerable and showing weakness, especially to a group of high achievers, is hard and takes practice and trust. It can be stressful for newcomers, and things get messy. But it's okay, because it has a purpose: the design is such that everyone learns from helping to clean up the muddle.

Since Malta, we have continued to experiment with the Gathering format. Every event is different because a different subset of the community participates. With their input, the agenda is adapted to make the most of those who will be in the room. Different types of locations and venues are tested. All of this sits in service to the core idea of creating an environment of learning and collaboration in a safe communal space.

> "No two Gatherings will ever be the same. Take a moment and look around the room; this is the last time this exact set of people will ever be sitting together." — Allen Gunn

The Gathering culture

Some of the Gathering's social activities are formally planned, and some have evolved as informal "rituals" over time. The location plays a role too, allowing for spontaneous moments that fade into lore. It's hard to go swimming in an underground cave when you're not in Mexico or to hike the Atlas Mountains if you aren't in Marrakech. These social components nurture and deepen relationships. Breaking out from the intensity of work and into a space for adventure, laughter and connection makes a long week short.

The culture of the Gathering is carefully shaped to mirror the values we hold in the fellowship all year round. In the same way, the culture of the Gathering spills out and influences other fellowship spaces. It changes how we chat, email and speak in meetings. It enables partnerships and collaborations. It connects people to one another and solidifies the ongoing commitment fellows and Foundation make to the shared fellowship. In short, the Gathering both reflects and shapes the "us".

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ONCE A FELLOW, ALWAYS A FELLOW

Funded fellowships last from one to three years, but when the funding runs dry, fellows aren't "out".

It stands to reason that lifelong change-makers who find a home and place with likeminded others tend to value those relationships and maintain them. It's also true that the longer fellows are around, the better others come to know them and their work; thus conversations and relationships become deeper and stronger. The shared experiences and trust fellows have built, the collaborations established, the advisors gained and the friendships made are rare, lasting and important. Fellows that come to the Gatherings or participate in communication channels bring news from their journeys, new learnings and new questions. The current fellows learn from this wisdom and benefit from experiences accumulated far beyond the fellowship. Returning fellows also learn from the new people and ideas that have entered the community since their fellowships ended.

At the 2017 Vancouver Gathering, Gavin Weale, a fellow who works in a number of African countries training young people to produce magazines and digital marketing, came back with an incredibly honest and vulnerable war story about how not to scale (page 97). The whole room was rapt. Everyone recognised the quandary and had felt the same pressure from funders to hit a number rather than achieve meaningful impact.

In response, the group pooled experiences and ideas to crowdsource "The Ten Commandments of Scale", including this gem by current fellow Isha Datar, whose New Harvest project is advancing the field of cellular agriculture and building the foundations for a post-animal bioeconomy:

> "Thou shalt have stretchy pants." Keep in mind worst- and best-case scenarios, and how you will manage the changing cashflow inherent in funder-based growth, and make sure you can scale up and down in an agile way (like stretchy pants do).

Openness, trust and respect are the bedrock of every long-lasting relationship, but this social glue is not always enough. It's a challenge for individuals from disparate fields and time zones to stay in touch, either as friends or as a network: personal and work commitments must come first. The Foundation's responsibility is to make sure connectedness can happen. Aside from the Gatherings and communications channels, there are several ideas we use to help nurture a continuing sense of community between fellowship and fellow. Here are a few examples:

Boards

There are many legal forms, governed by boards of trustees, used to house and implement an idea. The most appropriate structure may evolve over the lifespan of a project. The Foundation has no preference between non-profit, for-profit or no structure at all; it is about what works best for the work of the fellow.

Good boards provide strategic direction, support the organisation's leaders and help to explore difficult questions the team might face. The Foundation joins the fellow's decision-making board for the structure they choose. We bring expertise and experience, and in turn we learn from a new group of leaders, often in a field we are less familiar with. We remain a part of the board as long as we can add value, often long after the funding has ended. Our learnings are fed back into the fellowship.

Fellows also support each other. Esra'a Al Shafei transitioned from current fellow in September 2015, just as Astra Taylor joined. Esra'a got to know Astra and discovered their shared vision and values. Astra now serves on Esra'a's board.

Flash Grants

Expanding community thinking beyond the fellows is an overt goal of building the fellowship over time. The fellows' communities benefit from ambient sharing, and fellows are also empowered to fund others they believe in through a programme called Flash Grants.

Flash Grants create a shared responsibility between fellow and Foundation. Each fellow has the opportunity to nominate someone they think is doing

good work to receive a one-time award of $5,000, with minimal strings attached.

Flash Grant recipients agree to "live out loud" and tell the world they have Shuttleworth Foundation support. After six months they report back on how they used the funds.

Flash Grants are a very easy way for us to explore new ideas and new ways of giving. $5,000 is a small enough amount to risk – for both Foundation and fellows – yet large enough to make a difference to the right recipient. Flash Grants also turn the tables to some extent, by transforming the fellows into funders in their own right, with strategies, priorities and themes of their own.

Gathering letters

One of the ways fellows stay connected over time is the Gathering letters. In the very last session of every Gathering, each participant gets a piece of paper and a locally branded envelope, anchoring it in a time and place. Everyone attending has 30 minutes to find a quiet place and write a letter, starting with how they are feeling in the moment and then imagining what they would like to say to themselves six months from now. The letter is then sealed in the envelope, saved and handed back, for the writer's eyes only at the next Gathering they attend. This intimate reflection connects us to our past and future selves, over time.

Collective growth

The experience of one of our first fellows, Mark Horner, illustrates our journey and the core principles of the fellowship. While Mark was getting his PhD in physics and tutoring undergraduates, he and a few friends started the Free High School Textbooks project to solve a need he saw personally in the students he tutored. Karien Bezuidenhout, at the Foundation during its grantmaker phase, saw what he was doing, sought him out, and offered a small grant for the project. He got his PhD, did post-graduate work at Berkeley and the European Organization for Nuclear Research (CERN), and then landed what should have been his dream job in science – which ultimately didn't feel nearly as important as what he was doing with the textbooks.

We continued to follow his progress on open textbooks. When we heard that he was ready to work on open textbooks full-time, we hired him to do that with us. Technically, he was a project manager at the Foundation, but he continued to fully own and drive his own project.

As our funding model evolved into the current fellowship structure, Mark became one of our first fellows, experiencing the visceral, and sometimes painful, rapid evolution of the model in each of his fellowship years. He embodies our shift to "people not projects".

Mark and his organisation, Siyavula, taught us a great deal about openness and building a sustainable enterprise. The textbooks he created during the fellowship are open by default and still at the heart of the Siyavula offering. However, the income stream has grown out of a product – practice software – built upon the open content, but not open itself. Is that still making the world a better place through openness? We believe so. The open textbooks remain available and accessible to all, helping learners get to grips with the core curriculum. The practice software follows sound educational principles, adding value on top of the books at a reasonable price, for learners to cement their learning.

The Foundation remains a shareholder in Siyavula, and Karien remains a member of the board of directors. We hope to achieve true sustainability together, while continuing to learn from Mark and his team for some time to come.

...Always a fellow

Of course, it is always possible for a fellow to take the money, be pleasant and move on. The benefits of their fellowship experience will be ephemeral. Some may fade away because of family or work commitments and return to the fold later, recharged with new experiences and looking for new ideas to take ideas back to their own organisations. But all fellows have the opportunity to benefit from the support of the community and continue as a valued member and contributor. Most are still part of the fellowship, and many are active, both in person and online. Once a fellow, always a fellow.

FUNDING THE FUTURE

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THE $5M CHALLENGE

Consider the annual budgets of a few noteworthy funders: The Bill & Melinda Gates Foundation's total 2017 direct grantee support was $4.7bn.[2] The Open Society Foundation's budget for 2018 was over $1bn.[3] Omidyar Network's 2016 expenses were more than $125m.[4] The Wikimedia Foundation's total expenses for 2017 were in excess of $69m.[5]

Now consider how someone might spend $5m. Five million dollars will buy you a Lamborghini Veneno, or a three-bedroom flat in central London. It could pay for a single 30-second Super Bowl ad, 29 Snapchat lenses, a week-long campaign on Facebook or eight posts on Instagram from Selena Gomez.

Or, $5m could fund a year of determined fellows working on ideas that have the potential to change the world.

The Shuttleworth Foundation operates at a tiny fraction of the annual budget for most funders. With just $5m per year, we have produced 46 fellows so far. 90% of them continue to innovate in their field.

This impact is sustained because we pick people, not projects, and remain committed to them.

A three year fellowship provides up to $1m in funding. The following illustrate the long-term impact of the fellowship:

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2. Bill & Melinda Gates Foundation fact sheet (https://www.gatesfoundation.org/Who-We-Are/General-Information/Foundation-Factsheet).
3. $1,005,700,000 (https://www.opensocietyfoundations.org/about/expenditures-budget).
4. Omidyar Network financial statements (https://www.omidyar.com/sites/default/files/financials/2017_AuditedFinancial_Statement.pdf).
5. $69,136,758 (https://annual.wikimedia.org/2017/financials.html).

- Astra Taylor helped erase over $1 billion dollars of predatory debt.
- Kathi Fletcher has gone on to help over two million university students save more than $160m per semester using open textbooks through her position at OpenStax.
- Sean Bonner helped create the largest environmental radiation data set ever, and put it entirely into the public domain.
- Achal Prabhala is working to invalidate 85% of all medicine patents unjustly granted in India, giving access to life-saving medicine for billions of people.

Some fellows create organisations that endure; some go on to established institutions. Fellows continue to work on their vision through places such as Mozilla and CERN. Others build on the work that came before, such as Steve Song, Paul Gardner-Stephen, Peter Bloom and Luka Mustafa, who have all contributed incremental parts of a larger telecoms solution worth multiple billions of dollars. We could not have mapped out this trajectory when we started 10 years ago. We began with a big vision and found the right people to shape and grow it.

The Foundation and fellows are often asked how our fellowship model works in order to duplicate its efficient return on investment. The model has been copied, but not always successfully. The numbers don't work without the core philosophies and the fellows we choose – as much for their fit with the fellowship as their individual potential.

Imagine going to a friend's house for dinner. The meal is delicious, and you take a mental note of the ingredients, so you can try cooking it yourself at home. But unless you are very lucky, it's highly unlikely the dish will come out exactly the same. Your friend will use different utensils, a higher quality of ingredient, or perhaps be a little more liberal with herbs and seasoning. The result could be similar, although a little less tasty. It might be a complete disaster. Even if you had a full recipe, it is impossible to replicate the dish exactly, because you have to honour the precise process to achieve the desired result.

The fellowship only works if the intent and principles remain the same. If the recipe changes, you get a different meal.

$5m goes a long way when you are thoughtful and deliberate about how and whom you fund.

EPILOGUE

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SHADES OF GREEN

The colour green is well-suited to many philanthropic organisations. As funders, it's hard to ignore its strong association with money, and its connection to nature and our changing climate is a constant reminder of some of the urgent problems the world needs to fix. Green is also symbolic of growth, regeneration and renewal, and of vitality, harmony and freshness. The Portuguese use it to represent hope, while the Scots wear it for honour. In Japanese culture, green is regarded as the colour of eternal life.

Interestingly, specific terms for green have only recently been introduced to the Japanese language: before the Second World War, all greens were thought of as variants of blue. Anthropologists have since discovered that cultures undergo an evolution of words for colours when introduced to new ways of thinking. And once that green/blue distinction has been made, it paves the way for the creation of even more terms; new-found words for purples, browns, oranges, pinks.

There are similarities between this cultural development of colour terms and the Foundation story. Funding telecommunications technology has led us to explore the emerging languages of small scale manufacturing and open source conservation tracking. Backing open education projects has tuned our ears to important voices leading the charge for access to knowledge and fact checking.

Our experiment began in South Africa over ten years ago with three core team members exploring four thematic areas with five fellows. We now have 46, covering themes we couldn't possibly have imagined when we started. Over the years, this combined cast of characters has helped open our eyes to many of the new, growing challenges we all need to address as a global society.

Every individual listed below – each Shade of Green – has contributed to the growth, regeneration and renewal of the fellowship, while offering vitality, harmony and freshness of thought to the world with their projects. The fellowship is a place for hope, and the Foundation's transparent practices promise honour as a minimum. The Japanese green of eternal life may be beyond us, alas; but, the work fellows leave behind is there forever, to be used, built on or adapted as needed.

01. Helen Turvey

Helen is the executive director and responsible for the strategic direction of the Foundation. Educated in Europe, South America and the Middle East and with experience working for a range of international NGOs and agencies, she has overseen the transformation from the old Foundation model to the current over the past decade.

02. Karien Bezuidenhout

Karien is an advocate for openness and supporter of social entrepreneurs. She has played a wide range of roles within the Foundation and is now a director, focussed on the fellowship pogramme, engaging with issues of openness and social change, identifying potential investments and working closely with fellows towards realising their vision.

03. Jason Hudson

Jason is an open source enthusiast, highly qualified Linux professional and a director of the Shuttleworth Foundation. He founded the Freedom Toaster project, which was incubated by the Foundation in its earlier incarnation, and now Jason plans and manages all areas of information technology strategy, development and implementation at the Foundation and advises on these issues within the investments.

04. Andrew Rens 2007–2010

Our first fellow, Andrew defined the legal foundations for our work in access to knowledge, intellectual property reform and open education in South Africa. He went on to establish opencounsel.net to help social changemakers and activists with licensing matters. Andrew continues to work with the Foundation as counsel, and over the past decade has helped us apply open licensing to the emerging fields of open data, hardware, and biotechnology, and created the innovative Open Locks (page 90) legal mechanism.

05. Mark Surman 2007–2008

Mark became a fellow in 2007 to help us apply open source principles to philanthropy. He provided support and thinking to help us increase the impact of social innovation through community, transparency and all things open, and his work helped define the core methods, principles and philosophies that underpin much of what we do today. A community technology activist for over 20 years, Mark is now the executive director of the Mozilla Foundation, promoting openness, opportunity and innovation on the Internet.

06. Steve Song 2007–2011

Steve also joined us in 2007 to break down the barrier of expensive communications in South Africa. Founder of the Village Telco project, he built affordable community telephone networks – without mobile towers or landlines – using open source software and low cost wireless mesh technology. Steve is currently a fellow at Mozilla and a research associate with the Network Startup Resource Center. He is hugely influential in the global telecoms space, and now works at a policy and regulatory level.

07. Steve Vosloo 2008–2011

Steve enjoyed considerable success with his M4Lit platform, delivering short, compelling stories via mobile phones: 63,000 young South Africans from a diverse range of social backgrounds signed up to read the stories in the first month alone. Post-fellowship, Steve left South Africa to work for UNESCO, before returning for a role at Pearson Publishing. He recently took up a position at UNICEF as policy specialist for youth and digital connectivity, returning to the area of work he explored with the Foundation.

08. Mark Horner 2007–2012

Mark became Fellow for Open and Collaborative Resources in 2007. After our transition into the new fellowship model in 2009, he took ownership of the Siyavula project, and it became a for-profit social enterprise in 2011. To date, Siyavula has put 10 million openly licensed and free textbooks on school desks

in Africa and has pioneered machine learning technology to offer affordable maths and science practice services on any device.

09. Philipp Schmidt 2009–2012

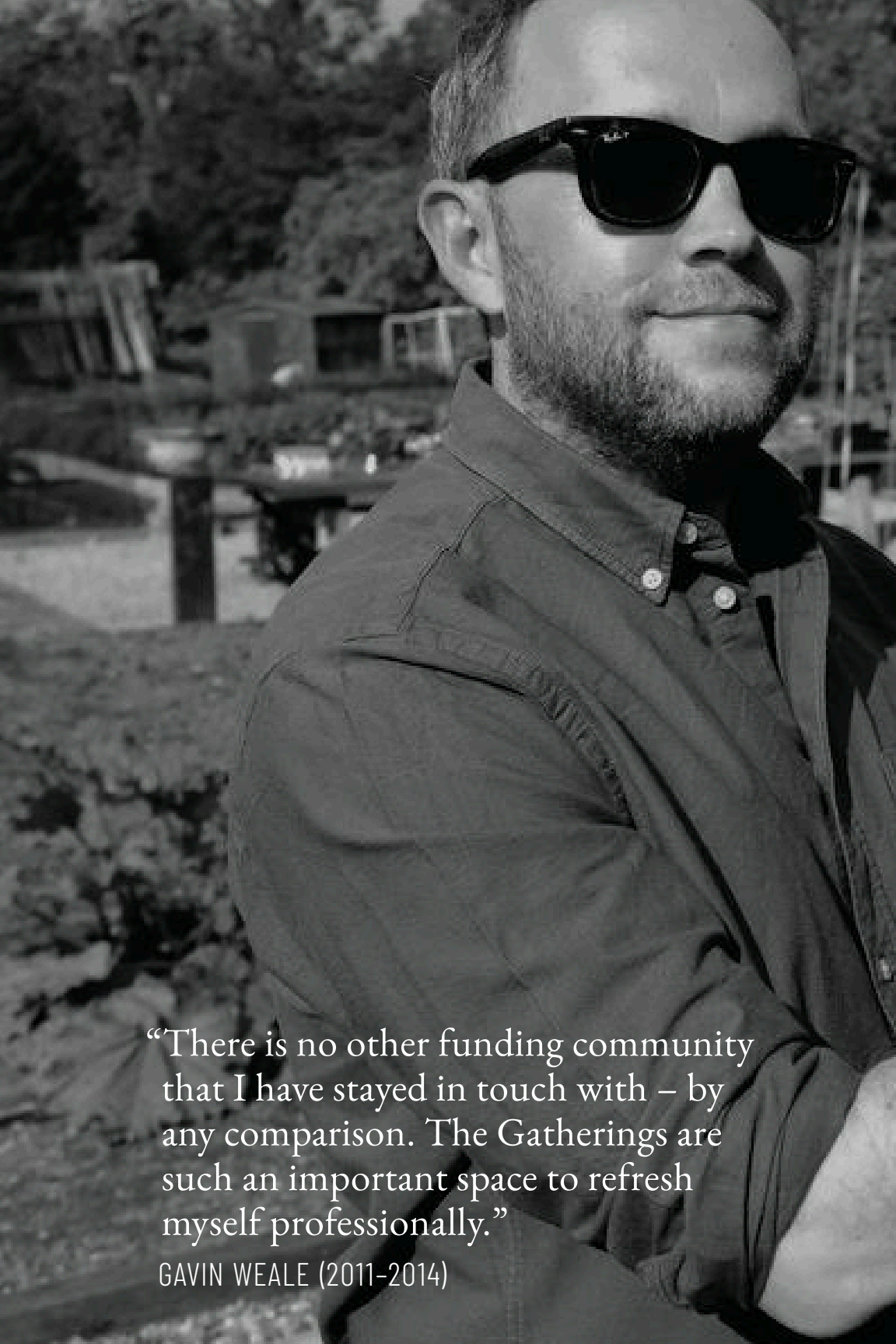
Philipp cofounded Peer 2 Peer University (P2PU) as a non-profit, grassroots, open learning institution to fill a gap in online education: social, peer-led experiences for self-learners. At its peak, the community swelled to over 100,000 active users, and P2PU has since grown into a worldwide community of educators, learners, librarians and technologists, all focussed on opening education to as many people as possible. Philipp remains on the P2PU board, and his experience has led to a role at MIT Media Lab as Director of the Learning Initiative.

10. François Grey 2010–2011

François became a Shuttleworth Fellow in 2010. His vision was to promote the concept of citizen cyberscience with Citizen Cyberlab, combining the fast-developing technologies of the web with citizen science practices to benefit the humanitarian development world. At the time of writing, François and Citizen Cyberlab were heavily involved with the Geneva-Tsinghua Initiative, creating a comprehensive challenge-based learning programme for the United Nations Sustainable Development Goals (SDGs).

11. Rufus Pollock 2010–2013

As the second fellow in our first intake of the new international model, Rufus spent his fellowship pursuing change in the way governments collect, order and share public information, while establishing the Open Knowledge Foundation as a leading organisation in its field. He introduced new ways of thinking about public data in governments and established OKFest, the leading international event on openness. Rufus continues as a champion of openness and has recently outlined a big vision for an open economy in his book *The Open Revolution*.



"There is no other funding community that I have stayed in touch with – by any comparison. The Gatherings are such an important space to refresh myself professionally."

GAVIN WEALE (2011-2014)

12. Gavin Weale 2011–2014

Gavin's Live SA project trained young South Africans as content creators and published influential content to an underserved sector of the community where resources are scarce and unemployment is rife. Gavin immersed himself into the lives and social challenges of young South Africans and built up a credible, highly engaged youth audience. Live SA has now grown into Digify Africa, a social enterprise furnishing over 85,000 young people in ten different countries with training in digital marketing skills, helping many find permanent employment.

13. Kabir Bavikatte 2011–2012

All over the world there are communities of indigenous people whose ecosystems are threatened by global corporations and government expropriation. Kabir founded Natural Justice to help. His fellowship involved developing biocultural community protocols and reinforcing ideas of stewardship rights, shared governance and management over collectively held resources. He is now the executive director of the Christensen Fund, advocating for protection and access to knowledge at the intersection between people, place, culture and ecology.

14. Kathi Fletcher 2011–2014

Kathi's idea was OERPUB: a set of open source tools and architectures connecting different softwares and enabling usable, shareable editing experiences for academic institutions and teachers. Her work was important technical plumbing that simplified authoring, adapting, repurposing and sharing. Kathi is now with Openstax, an organisation offering students no- or low-cost textbooks, and much of the interface work she did is still in use. At the time of writing, the Openstax team were helping over two million university students save around hundreds of millions of dollars per semester.

15. Arthur Attwell 2011–2014

Arthur worked on Paperight, a rights clearance house for literary and educational works. His idea was to enable on-demand book printing in any

location – a photocopy shop, for example – and widen access to reading in remote, underserved areas. He introduced new thinking and important conversations in the industry and is still driving the change he felt was needed in 2011 with his current ventures: Electric Book Works, Bettercare and Book Dash.

16. Paul Gardner-Stephen 2011–2012

Paul's Serval Project focussed on developing, testing and deploying WiFi technology and software to allow the use of mobile phones in remote areas without a network. This had enormous potential to be useful in disaster areas where cellular networks fail but was also used by human rights activists in Nigeria and the New Zealand Red Cross. Paul continues to fly the flag for open telecommunication with Serval from his Australian base at Flinders University, Adelaide.

17. Catharina Maracke 2012–2015

Catharina's fellowship involved building a sustainable framework to manage legal risks in collaborative development initiatives, including developing the next generation of standardised contributor agreements. Her work was important in making legal boundaries clear, so great projects would not falter due to technicalities. Catharina is currently associate professor at the Graduate School for Media and Governance at Keio University, working on copyright law and policy and the interaction between law and new media.

18. Marcin Jakubowski 2012–2014

Marcin's fellowship focussed on the Global Village Construction Set: a set of 50 affordable modular machines needed to start a new, small civilisation, based on an open source economy that works better for people, society and the environment. He was hugely successful in laying the groundwork for other innovators in the emerging field of open hardware. Halfway through his twenty-year plan, Marcin has recently started immersion workshops to train enthusiasts and expand the reach of Open Source Ecology across the United States.

19. Esra'a Al Shafei 2012–2015

Esra'a is the founder of MidEast Youth – now majal.org – and our first fellow from the Middle East. Her project was CrowdVoice, a crowdsourcing platform mapping and contextualising human rights violations happening around the world. It gives an accurate historical sense to the vast flow of info across the web, using witness reports, articles, blog posts, infographics and timelines. CrowdVoice engages a membership of 30,000 people and gives a voice to the underrepresented in some of the most highly surveilled, censorious regions of the world.

20. Jaisen Mathai 2012–2014

Jaisen was awarded a fellowship to develop Trovebox, a service that preserved personal and societal media for prosperity and a place to ensure media archives can outlive even the owner. His work was important in highlighting how the big problems with ownership and preservation on the Internet are present at such a small and simple scale. Jaisen is currently working as a product manager for Google but still flies the flag for Open, particularly with his Elodie project: a photo assistant, organiser and workflow automation tool that offers a new approach to the original intent and goal he had with Trovebox.

21. Dan Whaley 2013–2016

Dan's idea was Hypothes.is, an annotation tool that promotes a more open web and aims to improve the quality of online discussion and discourse. Built on Philipp Schmidt and Rufus Pollock's Shuttleworth-funded AnnotateIt project, Hypothes.is grew from an early stage idea to a fully fledged organisation in three years. It has been enormously successful as a mission-driven non-profit and now has 150,000 users making over 3.5 million annotations.

22. David Wiley 2013–2015

David became a fellow to work on Lumen Learning, a for-profit social enterprise seeking to make open educational resources (OER) part of the mainstream. He proved OER could replace expensive textbooks – bringing

costs down for students, schools and colleges – and demonstrated that students using OER would improve their learning outcomes. In 2018, David and Lumen Learning supported 230,000 students with course materials and with estimated savings of over $23 million.

23. Jonas Öberg 2013–2015

Jonas developed the Elog.io project and built technical infrastructure to provide instant credit and attribution to creators of openly licensed digital works. While his project did not prove sustainable as a business model, it is still an ongoing endeavour, with its image recognition and similarity matching databases still in use today. Jonas went on to an executive position at the Free Software Foundation Europe after his fellowship and recently joined Scania AB to build support structures for managing the company's internal open source program.

24. Daniel Lombraña González 2013–2016

Daniel's work with Crowdcrafting, PyBossa, and the human data mining organisation Sci Fabric demonstrates the power and potential of citizen science and crowdsourcing. Through its consultancy service, Sci Fabric develops and modifies PyBossa in seemingly infinite ways to fit the needs of its clients. Daniel and the SciFabric team have used volunteer communities and computing to deliver social impact in incredibly diverse areas, which include improving health outcomes, helping with humanitarian disasters and uncovering political misdemeanors.

25. Moxie Marlinspike 2014–2015

As individuals we should all be able to share our thoughts and feelings, actions and ideas with those we choose, without fear of surveillance or judgement. Moxie's fellowship aimed to address this issue with Open Whisper Systems, developing frictionless applications for secure communication, aimed at end users and providing an overall experience that is better than the non-secure defaults.

PMR 2014

CONVERSE

ALL ★ STAR

"The fellowship has totally changed my life – and it's still one of the biggest things in my life. It's my heartbeat, a guiding light, and gives me an environment that fuels me, and I can pay back into. The Gatherings are so important to do this."

PETER MURRAY-RUST (2014-2016)

26. Jesse von Doom 2014–2017

Music has the power to help us tap into new ideas and perspectives, but voices of resistance, protest and dissent are increasingly muted, whether it be a result of major labels playing it safe or the need for artists to take on multiple jobs to survive. Jesse worked on CASH Music to provide musicians with free and open source tools, support and a platform to give them more career control and independence. Today, he remains on the board at CASH and recently finished a digital directorship at Mozilla. Jesse also plays an important role at the Foundation, acting as "buddy" to each new cohort and helping them in the early stages of their fellowship.

27. Johnny West 2014–2017

Johnny's Open Oil project focussed on bringing openness to the extractives industries. By mapping purposefully opaque corporate networks and making data searchable and understandable, we all have more power to manage our finite resources more efficiently and profitably. His fellowship made significant progress in building a for-profit enterprise with an important social mission and, recently, Open Oil provided data analysis and financial models to secure an African government an extra $7 million in negotiations with an oil company.

28. Peter Murray-Rust 2014–2016

Society depends on scientific research to make progress. But when studies are locked behind expensive paywalls, only publishers and their shareholders benefit. Peter's fellowship focussed on the development of Content Mine, a platform and set of tools trying to liberate facts from scholarly articles and contextualise information to help researchers make sense of what they find. Despite huge preventative pressure from publishers, Peter continues to fight for his idea that "the right to read is the right to mine", and remains a committed and engaged fellow.

29. Rory Aronson 2014–2015

Rory's idea was FarmBot: a scalable, precision farming machine, built on open source principles. His aim was to challenge the growing problems of food

scarcity, security and supply quality, and the effects of climate change by enabling people to grow their own food at a local level and offering them more control over their diets. Rory continues to work on FarmBot – currently popular with the global hacker/maker crowd – with a new focus on making the system more attractive to the mainstream.

30. Peter Bloom 2014–2017

Peter founded Rhizomatica to create low-cost, community-owned, open-source cellular infrastructure for rural areas. His fellowship was a huge success in democratising telecommunications access, decreasing costs, and shifting the debate at policy level. Rhizomatica was granted the first community cellular network licence in the world, awarded a donation from the Mexican government for satellite capacity, and has replicated its work in different areas across continents, adapting as needed for each community's needs.

31. Seamus Kraft 2014–2017

After discovering Rufus Pollock's Annotator project, Seamus included its code as a core piece of the OpenGov Foundation, bringing openness straight to the heart of government. His fellowship idea was to encourage better lines of communication and engagement between citizens and elected representatives by offering tools to local civic institutions. Seamus remains executive director of OpenGov, while also establishing his new project – Article One – to help governments communicate better with constituents and be more effective and accountable.

32. Sean Bonner 2014–2017

Sean's fellowship project was Safecast, a volunteer-centred environmental data initiative. His fellowship focussed on the design and production of open sensors allowing individuals to measure different environmental factors and gather verified environmental information on a highly localised level. Safecast has collected the largest ever dataset of background radiation measurements and developed sensors for measuring air particulate, helping change the narrative in the field and empowering communities to better understand their environments.

33. Luka Mustafa 2015–2018

Luka began his fellowship working on Koruza, an open source 3D printable wireless optical system to enable "last-100m" Internet access. He ended it with his engineering company – Institute IRNAS – expanding way beyond telecommunications. Now, Luka and his team are able to solve complex and exotic problems in a variety of diverse fields, including the design and creation of Internet of Things devices, conservation technology and 3D bioprinting for several Shuttleworth-funded projects.

34. Adam Hyde 2015–2018

Adam's fellowship gave him an opportunity to put many of his long-held ideas about improving scholarly communication technology into practice. His work on the Coko Foundation involved creating open, shared infrastructure and methodologies, suites of tools, and frameworks, introducing them to a thriving, collaborative community. He has created a unique space as an innovator in the academic publishing world, and researchers, academics and society as a whole are all reaping the fruits of his labour.

35. Astra Taylor 2015–2018

Astra Taylor joined the fellowship to empower people to take control of their financial data, and shift public thinking about the nature of debt. With The Debt Collective, she has mobilised thousands of people to defend their rights, exposed predatory lending practices, and pierced a hole in the bureaucratic systems that protect profits over people. Astra and her community have won relief for student debtors worth over a billion dollars – giving an astonishing social return on our investment – and forced policy change at government level.

36. Waldo Jaquith 2015–2016

Waldo founded US Open Data to help the US government modernise its use of technology at all levels, specifically around opening data. During his fellowship he garnered widespread support for open data across a variety of departments, proving the value of openness inside and outside of government. After a single

funding year, Waldo had achieved his primary aims and made the decision to join 18F, an organisation supported by the US government to pool funding between states and enable the development and procurement of open source software.

37. Aaron Makaruk 2016–2017

Aaron's AKER Kits aimed to encourage a new wave of urban agriculture. His idea was to create a set of open source methodologies, tools and kits in an attempt to deal with the growing problem of food deserts and reset our increasingly distant relationship with food. While this idea proved unsustainable as a business model, Aaron has now shifted his focus to OS Beehive, which enables beekeepers to monitor hive conditions remotely and intervene to prevent bee colony loss.

38. Peter Cunliffe-Jones 2016–2019

Peter became a fellow with the aim of becoming the first fact-checking organisation to cover the continent of Africa. His work on Africa Check has been a huge success, resulting in a transparent, open platform that exposes misinformation and biased reporting in four countries and is now recognised as a global leader in the field. Peter stepped down from his position after achieving sustainability for Africa Check and recently became the International Fact-Checking Network's senior adviser, helping the organisation review and establish its new code of principles.

39. Tiffiniy Cheng 2016–2018

Tiffiniy is the cofounder of Fight for the Future, a small, agile group of Internet freedom fighters who mobilise and empower millions of people to stand up for their digital rights and organise against threats to an open web. Her fellowship tackled the pressing subjects of net neutrality and online surveillance, while building a sustainability path for Fight for the Future. Today, Tiff remains on the board of Fight for the Future, and works on replicating its successful model of online activism to enable teams in other critical-issue areas to be more politically effective.

40. Achal Prabhala 2016–

Private interests dominate the global development and manufacture of medicines, leading to fake innovation, bad patents, and the blocking of affordable versions of life-saving drugs. Achal is challenging a system encouraging profit over people with AccessIBSA, advocating for intellectual property reform and increased access to medicines, especially in under-resourced countries. His work has exposed and led to change in patent "evergreening" – corporations exploiting lax drug patent laws to protect monopolies.

41. Isha Datar 2016–

As the world's population grows, food insecurity is becoming one of the biggest challenges we face as a species. Isha recognises that we need to rethink the food supply chain and as director of New Harvest is leading the charge. Her work enables research and builds the foundations for a post-animal bioeconomy, and her fellowship touches on funding collaborative research, building a multi-disciplinary community, and educating stakeholders and the general public about the necessity for cellular agriculture.

42. Ugo Vallauri 2017–

Our current relationship with electronics is based on a marriage of convenience and short-termism: designs are becoming more disposable and less repairable, built within closed ecosystems that actually promote the idea of obsolescence. Ugo is providing the world with grounds for a divorce. His Restart project provides an open solution, reducing electronic waste and promoting repair, reuse and sustainability. And he attacks this growing issue from all sides, involving everything from repair workshops up to advocating for policy change at the governmental level.

43. Alasdair Davies 2017–

Alasdair's Arribada Initiative is bringing open source, affordable, customisable technology to conservation. Starting out with the creation of a turtle tag, Alasdair has refined and fine-tuned the device, giving researchers the ability to

collect turtle behaviour data at a cost 90% less than commercial alternatives. His work – some of which is co-created by Shuttleworth Fellow Luka Mustafa – has now expanded into a variety of themes, including camera traps and thermal imaging for human-wildlife conflict environments.

44. Anasuya Sengupta 2017–

Just as history is always written by the victors, the Internet is created by those with power and privilege. In a rich, multicultural world, we only see a small part of the tapestry. Anasuya is re-imagining the web with Whose Knowledge?, an initiative designed to drive inclusiveness and diversity into the content we all consume online. In championing this cause, she represents and promotes marginalised, unheard voices to nurture a more inclusive and diverse perspective.

45. Mad Price Ball 2017–2019

Mad's work with Open Humans questions current thinking on health data. There are inherent risks around privacy, security and discrimination surrounding this personal information, motivating a siloed approach to data gathering. But what happens when people can manage and share their own data? Over their fellowship, Mad and Open Humans have demonstrated that giving people control and power over health data can be empowering. Not only do contributors become active participants, but they also help to advance research.

46. Tarek Loubani 2017–

Tarek is designing, creating and testing low-cost, open source and universally accessible medical hardware. His organisation – Glia – builds a range of medical devices that equals or exceeds the quality of premium brands at a fraction of the price. These include a $3 stethoscope built to the same standards as the $300 market standard, a $7 3-D printed tourniquet tested in the field in Gaza, and a $15 otoscope. Tarek's work expands into enabling independent development, particularly in conflict zones and under-resourced areas.

47. Jenny Molloy 2018–

Jenny is exploring the viability of an open and sustainable bioeconomy for the public good. Her aim is to increase participation and innovation by solving the distribution problems faced by grassroots scientists, while encouraging policymakers to build open thinking into their innovation policies. Jenny's project challenges the current narrative in biotechnology where proprietary models, patent protection and profit maximisation are the norm.

48. Karla Córdoba-Brenes 2018–

Karla is cofounder of BeSpiral. Her idea is to enable communities with a shared purpose to create digital, complementary currencies based on self-determined values and rules – to achieve social and environmental goals, for example. Using blockchain technology is an innovative take on complementary currencies, which studies suggest have many positive impacts on local environments, economies and societies. This idea is potentially transformative for communities everywhere, particularly those that lack resources.

49. Andrew Lamb 2018–

Andrew is shifting thinking in disaster relief procurement and logistics with his Massive Small Manufacturing concept. Using 3D printing and open source designs, the idea is to distribute manufacturing capabilities in disaster zones and enable partnerships between local factories and relief agencies. His work aims to put life-saving equipment into the hands of those who need it faster, better and cheaper, while saving lives and providing opportunities for economic recovery in disaster-hit communities.

50. _____ 2019–

Our fiftieth shade of green is, as yet, out of view. But we know they are out there, ready to unveil solutions for the world's emerging challenges. It could be anyone reading this right now, with an idea, fresh perspective or as yet unproven solution that questions conventional wisdom and solves real world problems. We seek individuals – regardless of location, qualifications, gender or age – willing to take a risk and benefit society. There are no specific themes.

Our only requirement is that potential fellows commit to openness and the fellowship with 100% focus, bravery, and a broad and generous mind.

APPENDIX

APPENDIX

OVERVIEW

The following are practical instruments used in the fellowship. These are all living documents that represent the embodiment of our theories, changing as new ideas come into the fellowship. These are published using open licences. Please them and use them for your own purposes.

Updates and further documentation can be found at github.com/ShuttleworthFoundation.

APPLICATION FORM

Every potential fellow fills out an application form. Each question is designed to help everyone understand the essence of what, why and how a change will manifest.

Prospective applicants often ask us to narrow down the parameters for applications and be more specific about what we're looking for. We are not planning on doing that, as we want to be surprised and intrigued by applicants, no matter how unconventional the idea may be.

Deliberately, the form uses clean, simple questions that carve a narrative and act as a basis for conversation and partnership.

Personal information

First name	
Last name	
Email address	
Date of birth	
Nationality	
Gender	Male/Female/Non-binary/Rather not say

Questions

1. Tell us about the world as you see it.
   A description of the status quo and context in which you will be working

2. What change do you want to make in the world?
   A description of what you want to change about the status quo, in the world, your personal vision for this area

3. What do you believe has prevented this change to date?
   Describe the innovations or questions you would like to explore during the fellowship year

4. What are you going to do to get there?
   A description of what you actually plan to do during the year

5. What challenges or uncertainties do you expect to face?

6. What part does openness play in your idea?

7. Does your idea/project have a name? ☐ Yes ☐ No

8. Have you started implementing the idea? ☐ Yes ☐ No

9. How have you funded your initiative in the past?

   ☐ Self funded
   ☐ Family and friends
   ☐ Not funded yet
   ☐ Angel investor
   ☐ Venture capital
   ☐ Other

10. Who are your current or potential key partners?

11. Do you intend to implement the idea as a for-profit or not-for-profit initiative?

    ☐ For profit
    ☐ Not for profit
    ☐ Haven't thought about it...

12. Where will you be based during the fellowship?
    Base country, base city

13. Where will you implement your idea?

    ☐ Same as above
    ☐ Online
    ☐ Other country or city

14. Do you have an online presence? ☐ Yes ☐ No

15. Does the idea/project have an online presence? ☐ Yes ☐ No

16. Upload résumé
    PDF file is preferable

17. Link to your video
    Vimeo or YouTube preferable. Facebook or Dropbox links not accepted

18. Video password
    If private

19. I acknowledge that:

    ☐ This video is purpose made for this application.
    ☐ This video link points to a video available on a video hosting service like Vimeo or YouTube.

20. Have you applied for a Shuttleworth Foundation Fellowship in a previous round? ☐ Yes ☐ No

21. How did you hear about the Shuttleworth Foundation Fellowship Program?

    ☐ Friend
    ☐ Current/Past fellow
    ☐ On the web
    ☐ In the mainstream media
    ☐ At a conference
    ☐ Other

II

THE AGREEMENT LETTER

The agreement letter is what fellows receive just after we let them know they have been selected. As far as possible, the letter uses clean, straightforward language, and sets out the commitments and values upon which the fellowship will be based.

Dear New Fellow,

This agreement sets out how we will work together over the coming year. Once you're happy with this document, please confirm you wish to proceed, and we will load it into our digital signature management system for signing. At that point, it will become effective as our mutual agreement.

Included in this agreement is a specification sheet, which details the data pertaining to your specific fellowship, a fellowship overview, which describes what we hope to achieve together, and our broad philosophy and theory of change, which outlines how we behave in the world. Also included are the governing provisions that will protect both of us going forward.

Our commitment to you
This fellowship offers you freedom, financial ability, and an enabling support structure to bring about the change you envisage for the world. We will provide technological, accounting and legal support. We aim to be a true collaborator in working and thinking with you to achieve your goals. You will find yourself part of an ever growing community of trust, where wins, losses, learnings and experiences are shared.

Your commitment to us
You will wholeheartedly commit to driving the change you envision in the world. That includes making the most of the opportunities this fellowship offers.

To do that, you agree not to do paid or time-consuming work outside of the fellowship without our explicit, case-by-case permission. We're likely to approve other work if we're confident it won't negatively affect your ability to implement your vision to change the world.

You will actively participate in the safe spaces we have created to connect, share, commiserate, learn and celebrate, both in person and online. We believe the whole of this community really is stronger than its constituent parts. While domains may not overlap, the sentiment and overarching ideals do. Mutual respect and care are at the heart of it.

You will actively and publicly identify yourself as a Shuttleworth Foundation Fellow, strengthening the collective voice of the group in its pursuit of openness, inclusiveness and equity. Please use the appropriate Foundation logos to do so.

You will keep confidential any information about the Foundation and other Shuttleworth Fellows that might reasonably need to be kept confidential. The personal security and liberty of some fellows could be at risk if video or photographic images of them are made public. When in doubt, ask.

Openness
Being open with our work is vital for others to replicate it and benefit society. If we can shorten the time it takes a good idea to spread by living out loud, the results will speak for themselves. Everything we work on is designed to demonstrate the power of openness, participation and creativity. We believe your work can help build an open knowledge society. That is why we insist on open communications, open licences, open source and open reporting.

As a Shuttleworth Fellow, you will be creating intellectual property by writing, gathering data, contributing to designs and so on. The intellectual property you create will belong to you (or your organisation if you so choose) to ensure you have the power to continue to use, share and evolve it. To help you get your ideas out into the world, and realise the potential value of openness, you will release everything as an open resource. Resources are open when they are available for revision, translation, improvement and sharing, under open licences, open standards and in open formats, free from technical protection measures.

We understand that there are a number of legitimate reasons why certain resources may not be made open. We will consider instances of privacy, confidentiality, security and utility, which may preclude certain documents or information from being licensed in this way, but our default is always open.

Grant
You will receive a grant, in four equal instalments, to devote your time and energy to your fellowship. You will be responsible for managing your own time and efforts, and complying with the relevant tax laws in your jurisdiction.

Alongside this grant, in a separate process, you will have the opportunity to apply for additional project funding by making a personal contribution. We will match your contribution of up to $25,000 tenfold, with project funding of $250,000. This funding may be used by you to advance your thinking, collaborate, travel, create or drive your ideas forward and will be governed by separate agreements.

There are many legal forms an initiative can take to change the world. We wish for you to have the most appropriate structure to achieve your aims. We have no preference between non-profit, for-profit or no structure at all; it is about what works best for you. To continue to learn and evolve, and for the good of those that come after you, we would like to become a member of your decision-making board. If you have a for-profit entity, we ask for a 30% equity stake. Should you strike it big, you will be contributing to the support of future change agents.

Success
Once you have joined this fellowship, you will always be considered a Shuttleworth Fellow. You will be part of our community and will have a voice. We hope you will grow and learn with us, and other Shuttleworth Fellows, to build a network of comrades who understand that the world should, and can, be better by being open.

Measuring your impact in the world will be hard. While many models for measuring impact exist, in truth most of them only evaluate implementation, which is bound to be complex, will not adhere to your implementation timelines and will often extend way beyond your control. Instead, we think of success in terms of your on-going contribution to change.

For us, the highest level of success at the end of a fellowship year is that we know more than we did at the beginning, and that that knowledge has allowed you, us and others to shift thinking. This can only happen through experimentation and iteration, and when that knowledge is available to others to learn from and build upon. In the long term, we hope that you go on to influence positive social change in your field way beyond the duration of this year.

We want you to know, it is our belief that the more you put in, the more you share, the more open you are, the more successful you will become. Within this context, we work with you to define your own successes, for the fellowship year and for your big picture change in the world.

Thank you
You are dedicating your valuable time and efforts to building something bigger than yourself, while placing your faith in a foundation you don't yet know well. You have been brave enough to re-imagine how our world can be more safe, more equitable and more just. We owe you our gratitude for your unique vision, your passion and your desire to make the changes you have so eloquently expressed to us.

Thank you for joining us. We hope you are as excited as we are.

III

OPEN REQUIREMENTS

The Open Requirements are an addendum to the fellowship agreement letter, ensuring every fellow is committed to openness in every aspect of their work, wherever possible.

Open Requirements

Being open about our work is vital for others to replicate them and benefit society. If we can shorten the time it takes a good idea to spread by living out loud, the results will speak for themselves. Everything we work on – from education to science to telecoms – demonstrates the power of openness, participation and creativity. We believe your work can help us build an open knowledge society. That is why we insist on open communications, open licences, open source and open reporting.

To help fellows get their ideas out into the world, and realise the value of openness at the core of our theory of change, so fellows and the people we support to work with fellows release everything they make as an open resource. Resources are open resources when they are publicly available online for revision, translation, improvement and sharing under open licences, open standards and in open formats, free of technical protection measures.

Knowledge resources

If you are a fellow, then the Open Requirements apply to knowledge resources that you create during the fellowship year or pay for as a fellow. If compelling reasons of privacy, confidentiality or security make it inappropriate for you to make a particular document or information open, then you can discuss those issues with us. Every decision to exempt a particular resource from the Open Requirements and the justification for the exemption is recorded. Fear of unforeseeable consequences or of the negative reactions of others or the desire to use patents to raise capital are not compelling reasons to depart from the Open Requirements.

Open content and data

You must make knowledge resources open as defined in the Open Definition (http://opendefinition.org/) "A piece of data or content is open if anyone is free to use, reuse, and redistribute it – subject only, at most, to the requirement to attribute and/or share-alike." You must share data (http://opendefinition.org/licenses/#Data) under Creative Commons 0 or another licence or dedication that complies with the Open Definition. You must share knowledge resources using a format that is platform independent, machine readable, editable and available to the public without restrictions that would impede the re-use of the information.

Free and open source software

You must distribute software under the General Public License 3.0 (http://www.gnu.org/licenses/gpl) or another licence listed by the Open Source Initiative as complying with the Open Source Definition (http://opensource.org/osd) but you must license software that functions primarily as network server software under the GNU Affero General Public License (http://www.gnu.org/licenses/agpl.html).

Open hardware

You must license all hardware under a licence or licences that comply with the Open Source Hardware Definition (http://www.oshwa.org/definition/). If semiconductor chip products or mask rights apply to anything you create during the fellowship year or pay for as a fellow, you must give an irrevocable non-exclusive royalty free licence or licences under those rights that permits and enables anyone to make, use, sell, offer for sale, import or distribute products conditional only upon attribution and share-alike requirements.

Other licences

You can share data and knowledge resources subject to intellectual property under licences that are more restrictive than those required here but only if you share the same data or knowledge resource under the open licences or dedications required here. You can also ask the Foundation to agree that you

can use to a more restrictive licence without the simultaneous distribution required here.

Patents and registered designs

You are free to ask the Foundation to agree that you obtain a patent, utility patent, registered designs, plant breeder's right or similar registered right over any knowledge resource or intellectual property under the Open Requirements, but you must not do so without written agreement. If you do so without written agreement, then the Foundation can require you to transfer the registered right to the Foundation.

Ownership

Intellectual property over knowledge resources that you create during a fellowship year or pay for as a fellow belongs to you, unless you've agreed with the Foundation that the intellectual property is owned by an intellectual property steward. You in the Open Requirements means you as a fellow. In any fellowship year, you can transfer ownership of any of the intellectual property under the Open Requirements but only with the written agreement of the Foundation.

When you as fellow pay someone else to create anything under intellectual property with funds from the Foundation, you must ensure that the intellectual property is owned by you or in the intellectual property steward if someone else is intellectual property steward. Ownership of intellectual property under the Open Requirements is good and sufficient consideration for you to comply with the Open Requirements.

In the Open Requirements, "intellectual property" means patents, rights to inventions, registered designs, semiconductor-product and mask rights, design rights, know-how, trade secrets, trade marks, Uniform Resource Locators (URLs), all rights of copyright, neighbouring rights, database rights and all rights having equivalent or similar effect anywhere in the world.

To ensure that others can carry on the work you have started, the Foundation has as a perpetual, universal, royalty free licence to all intellectual property under the Open Requirements that entitles the Foundation to distribute the

intellectual property on any terms it deems fit, including under one or more public licences or to grant non-exclusive, all-rights-reserved licences to others, including through multiple tiers of sub-licences, without any further obligation to you.

Stewardship

In these Open Requirements you also means anyone who has agreed to be intellectual property steward for knowledge resources of a fellow. The Open Requirements apply to intellectual property over knowledge resources created by a fellow during a fellowship year or paid for as fellow. You have the same obligations as a fellow under the Open Requirements.

IV

OPEN LOCKS

Open Locks are a very specific legal mechanism to make sure that initial commitments to keep various things in the open remain so. Below, we discuss how the Shuttleworth Foundation has been using Open Locks, and we give specific examples that may be useful to others.

Open Locks: legal commitments that lock in trust

It's hard for anyone to make a positive change in the world when they are behind on mortgage payments, have credit card debt building up, and are waiting for a decision on a grant. And things get even testier when a private investor waves a few high-number bills under their nose and offers to buy them out – on the proviso they make a few "concessions", of course.

The history of open knowledge resource organisations – from open software through open textbooks to open science through open hardware – is littered with this kind of occurrence. Some founders start out with the best intentions before defecting to the comforts and potential riches of a proprietary model. Many others find themselves pressured by investors – or even board members – to lock up knowledge and charge for it instead. But most just run out of steam due to life getting in the way – and seek what is the only way out to make it easier.

Such experience goes against what many founders start out trying to achieve. They fund something to be open, only to turn around after the acquittals have been sent to find the project has now sold its intellectual property to someone else.

This raises an important question: how do we ensure that the founder's commitment to openness and society endures when circumstances change? The Shuttleworth Foundation solution is the Open Lock.

The Open Lock is a binding legal commitment with explicit wording inserted or added into the foundational documents of a social enterprise, non-profit or for-profit. It is an important innovation for the Foundation – and the wider open world – and is an entrenched provision in the governing documents of a company that requires open licensing.

The impact of the Open Lock is simple but incredibly effective: it means no one who acts for a company has the legal authority to lock down knowledge. It acts as a last line of defence against the threat of proprietary interests now and in the future, and ensures the original commitment to social change remains in place, regardless of what decisions or circumstances occur with the founder.

An Open Lock can be used in a multitude of different ways. It might be used to ensure an organisation cannot apply for patents, or it could be used to prevent volunteer data being sold off to the higher bidder.

Open Locks is a binding commitment in the foundational documents of an enterprise to share knowledge under open licences. Sometimes it includes a commitment not to close knowledge in a certain way. For example, Open Locks could state that an enterprise will not apply for software patents.

For-profit enterprises and many non-profits are incorporated: that is, they are legal entities recognised under law, and defined by their foundational documentation. Open Locks can be written into those foundational documents when the organisation becomes incorporated, or existing companies can add them by amending their foundational documents. An organisation that is not incorporated can include an Open Lock in a constitution.

The legal effect of an Open Lock is that no-one who acts for a company has the legal authority to lock knowledge down.

As with similar provisions, an Open Lock can usually be changed, but change can only happen through a special procedure. For instance, changing Open Locks usually requires the agreement of an external guarantor, who may only hold a few shares but can veto any change to an Open Lock. The guarantor is often referred to as holding a golden share. The difficulty of changing an Open Lock means that it can't be done quickly or easily or surreptitiously. Instead, there is time for social processes to play out, for contributors to withdraw their work, for someone to fork the project, and for those who've helped build it to be heard.

At the Foundation we created Open Locks to add to our toolkit because we needed them to help our fellows build new enterprises on a foundation of openness. For instance, Content Mine is a scientific data-mining non-profit that uses an Open Lock to guarantee that its data and software will remain

open. And Siyavula is a textbook publisher committed to licensing all volunteer contributions under a Creative Commons Attribution licence.

While our Open Locks have already helped to protect commitments to open knowledge, we've only been using them for a few years. They are an experiment that will only be truly tested over the long term. There is much to learn. We are looking forward to seeing how other social enterprises do better than we have done, and extend the experiment in ways that we haven't thought about.

Exactly how an Open Lock is implemented depends on applicable company law, what the company does, and the likely threats to its mission. As a starting point, we've developed example clauses that we and others can use, adapt and improve.

We use this model legal language as an Open Lock in agreements and foundational documents. Our latest language is in our GitHub repository (https://github.com/ShuttleworthFoundation).

V

GATHERING GUIDELINES

Below, we include practical how-tos of our Gathering format to demonstrate how to balance power dynamics and create constructive collaborative events.

Gathering rules

There are a few rules necessary to orchestrate the Gathering, but they all revolve around respecting the process that in turn, respects the people.

1. If you come at all, you come for it all
Current fellows MUST attend, and all attendees must be present for the entire period. There is a designed sense of egalitarianism at every Gathering. Everyone is at the same level, there for the entirety, and no one is special.

2. Be present
All sessions are important, nothing is skippable. No time out to take calls or hold offsite meetings – it breaks the dynamic. To create a productive community of trust and respect, everyone must be "all in".

3. No presentations
Monologues and PowerPoint presentations are unwelcome. Breakout sessions are held to create dialogue around a specific issue so the host gets as much wisdom from as many people in the room as possible. These are for honest deep dives into issues, not to present your best possible self; you are not selling yourself or your project. Keep. It. Real.

4. No companions
Gatherings are for fellows and staff only, and family or team members should not attend events or share accommodation. The focus is on generating a community. Others are a distraction, diminishing this effort substantially.

5. Meeting rules
In addition to the Gathering rules, which relate to the event as a whole, these are the rules that the facilitator shares at the beginning of each Gathering to remind the group how to work together during the event.

The rules:

- Treat others with respect at all times.
- Be on time. If you aren't on time, you will sing a song. No exceptions.
- Listen and focus.
- When we disagree, agree to diversity of opinion rather than debate.
- No jargon.
- Questions are heroic acts.
- With N people in the room, speak 1/Nth of the time.
- Practise constructive selfishness: working through problems or opportunities that are important to you in ways that have benefit for other participants.
- During breaks, sit with someone you don't know well.
- Don't share beyond the group without permission.
- Devices at ease. Keep laptops and phones out of sight and out of mind. Technology is distracting and will negatively affect the ability to engage.

The agenda

Key features:

- The number of people in each session is small.
- Ample breaks throughout the day to avoid exhaustion.
- Lots of space for impromptu conversations and breakouts.
- Not set in stone: be prepared to adjust the agenda through the week as needed.
- A variety of session types.

Typical sessions

- "Dogfood" sessions: Fellows present some aspect of their current work where they invite colleagues to try something out, advise on a tricky situation, discuss a potential strategy pivot.
- Breakouts: Sessions centred on particular topics that have been curated to take advantage of the mix of fellows and requests. Tools, technical project needs, how to do remote better, personal sustainability...
- Skills shares: Everyone gets a sheet of paper where they can (if they want) list a skill they could share. The skills are sometimes relevant to being a fellow,

such as "how to write an email that will get results," and sometimes not – such as how to do a tap dance move called "shave and a haircut." Fellows not sharing can choose a skill to learn.
- Letter writing: Every staff member and fellow gets an envelope and a piece of paper. They have 30 minutes to then find a space and write a letter to themselves. In that letter they write about their feelings at the moment and what they want to tell themselves six months from then. Some keep the entire archive of letters they've written in the sealed envelope and look back over it each year.
- Sage session: Experts from very different contexts, invited not as participants but as instructors, lead optional sessions on topics ranging from fundraising and marketing to human resources and public speaking.

Facilitation tips

Great facilitation lies at the heart of a successful Gathering, and over the years we have gained valuable insight into getting the mix just right. It's important for the facilitator to come from outside the organisation, to remove the hierarchies sometimes imposed by the everyday workings of the fellowship. We must all surrender control to the facilitator so they – alone – can apply the Gathering rules to all participants equally and fairly.

If the facilitator were part of the group, the dynamic would already be a bust. It's a subtle point. While some would suggest these issues can be easily resolved by simply playing by the rules, in practice it's very different. Any kind of existing hierarchical relationship between the facilitator and group members will, inevitably, skew the dynamic for the worse.

The facilitator holds the room to the rules we've agreed to, and oversees each Gathering with an iron fist in a velvet glove. Promptness is a perfect example. It matters. It is expected of everyone as a matter of respect. And if you're late, you will sing a song – with no exceptions. It is a matter of embarrassment for some – and rather unwarranted pride for others – but there is a shared expectation that you will be penalised for disrupting the flow and disrespecting the group.

Correcting those minor infractions with moments of joy in an intense five-day event is one of the many ways a facilitator must mediate the interpersonal and group dynamics. It takes a skilled and steady hand to navigate everyone through a Gathering without conflict. Even the closest of families fight when

they're in a room for five days, and our fellowship is no exception. Too lax, and arguments and bad feelings can slip into the fray; too stern, and it could lead to a multitude of unproductive wormholes.

We have learnt that working with one person who understands us and what we are trying to achieve, rather than relearning norms each time, is much more rewarding.

VI

THOU SHALT SCALE SUSTAINABLY

Crowdsourced in Vancouver, Canada, from the assembled Shuttleworth fellows, alumni and staff of 2017, and transcribed (with bad jokes) by Gavin Weale.

The ten commandments of scaling

In the world of social innovation and making change, we are continually barraged by the imperative to scale. In every funding bid, in every set of objectives, it is an impossible dynamic to escape if you are trying to seek support. But what does scale even mean? And why do you even want to scale? More importantly, if you do end up going 100X, will you know how to handle it without turning into a hot mess of anxiety and remorse?

Following a Come-to-Jesus confessional about my scaling pains with Livity Africa, in which I described an attempt to scale in 2016 that ended in tears, heartbreak and debt, we discussed and shortlisted the top ten lessons I and others should draw from the combined hivemind-megabrain of the Shuttleworth Foundation macro-institutional memory.

That is to say: here is the shit you might benefit from knowing, in ten biblical directives. In short: you can believe in God, but do remember to tie up your camels.

1. Cashflow is king
Whatever your profit-and-loss or balance sheet says, if you see minus signs in your cashflow then you have to take action, and quickly. This may mean painful decisions like reducing headcount. You need to grasp those nettles as early as you can to avoid greater pain down the road when you can't afford to pay people's salaries. Which, for those who have never experienced it, creates a sensation something akin to what I imagine having a fork inserted into one of your eyeballs would feel like.

2. Thou shalt be true to thine mission
Success can breed success, and, especially in the funding world, zeitgeists come and go. You may be the cock of the walk today, but if the whims of funders change, you could be tomorrow's Kentucky Fried Leftovers. When scaling fast, you can protect yourself by defining and adhering to your mission with almost laser precision. If you and your team are clear on the value you want to create, you are less likely to sleepwalk into bad funding relationships.

3. Blessed be the incrementalist
There are hares. There are tortoises. And there are lemmings waiting to throw themselves off of the Cliff of Scale through sheer stupidity. If I could talk with my younger self, the one with a full head of hair and a six-pack, I would tell him to approach big opportunities with an attitude of incrementalism, both in terms of the targets he takes on, and the team he builds. And I would tell him to stop being such a dick.

4. Thou shalt not covet thy neighbour's scale
Your growth and your scale is your own business. While it may be tempting to think that the Silicon Valley model of scale is the only true benchmark, in the context of a social enterprise, the scale is relative to your impact. If you train a million people, is that truly "scale" if the training is not impact? What even is scale? Why is it important to you? How do you define it? What's the meaning of life? Who am I? What year is it? Who's the president? (Actually, on second thoughts, don't answer that last one...)

5. Thou shalt not take whopper-bucks
Who is going to say no to being offered a squillion dollars by a funder? But if you do... what happens when that contract ends? Large funding wins should be greeted with celebratory fizzy drinks or other non-alcoholic victuals, and then treated with extreme caution and scepticism. Your approach to scaling up will be key here. How will you crew up and then potentially crew down if the contract is relatively short? Whopper money with a whopper target tastes better on the way down when the funds hit your account, but not so good when you are vomiting blood with anxiety trying to hit an astronomical delivery target. Make sure your funder-target is achievable and delivers scale of impact too.

6. Thou shalt be modular
If you are to stray from your mission in the interests of, say, generating a ton of cash from a commercial opportunity, then you should try and think modular.

That could mean sectioning off products or revenue streams to be delivered in a way that they can be grown/spun-off, or killed and forgotten without spilling too much blood. Never look a gift-horse in the mouth. Just make sure you can humanely shoot it in the paddock if it leads you in the wrong direction.

7. Thou shalt document
Sustainable growth will only happen through continuous learning. Documenting mistakes and learnings, as well as recording values, mission and strategic/operational principles, is best captured along the way – although some of the most critical learnings will inevitably be internalised by the sheer agony they cause you. In a way, defining your scale in terms of your business model could be treated as a product or experiment of its own.

8. Thou shalt have stretchy pants
Cashflow will fluctuate, especially if your model is heavily funder-based. How are you going to keep your voluminous under-trousers stretchy enough to take up the slack when your coffers grow, but not fall to your ankles when your pockets are empty, leaving you dangerously exposed? It is worth having scenarios in mind for both worst and best cases, and considering how your operations and team would cope with either. This will force you to think about the best way to scale up or down in an agile way. An outsourced/freelancer model may help.

9. Thou shalt put time and effort into your financial forecasting
If you do not understand your numbers, you will die. Make sure you know, or pay for someone who knows how to help you know. Reading a cashflow forecast and profit-and-loss sheet is a basic human need for a social entrepreneur. Cigarette-packet budgets and thumbsuck forecasts will get you through a couple of years of helter-skelter growth, but if you want to really ride the Big Wheel, you better invest in the time or cost of a bad-ass bean counter. And if that is not a clusterfuck of metaphors in one sentence, I don't know what is.

10. Thou shalt define the value you want to create in the world
I will say it again: scaling numbers does not equal scaling impact. The value you want to create in the world is up to you to define, based on your ambition and the things you think are important in your theory of change. If you know you are creating true value and changing things, it should be fairly clear to you, and you perhaps should not even worry about scale if you haven't got that bit clear. If you have, then go forth: you are ready to make like a lizard and get scaley.