

10 STRATEGIES FOR BUILDING INNOVATION ECOSYSTEMS IN EARLY STAGE MARKETS

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 **OMIDYAR
NETWORK**
A WORLD OF POSITIVE RETURNS

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Introduction

Technology has the potential to have a dramatic impact on developing countries. The cost of connectivity and components has fallen significantly, while the power and utility of technology have massively increased. In critical sectors like health and education to financial inclusion and open government there is an opportunity for poorer countries to perform a “digital leapfrog”: to use technology to accelerate growth and development.

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However, to really take advantage of technology, developing countries need people and organizations who understand and can apply these tools and processes. In many developing countries, these kinds of innovation ecosystems don’t exist. But, they can be built.

This note looks at what can be learned from the example of Myanmar. Until just a few years ago, Myanmar had rates of mobile and internet penetration lower than even North Korea. Then in 2014, the government opened up the telecommunications market. Within three years, there were more active SIM cards than people and Myanmar had the highest rate of smartphone penetration of any developing country.



Myanmar’s tech ecosystem is now thriving.

Before any new towers were built, I began an effort to ensure that the country could take advantage of the coming connectivity revolution. After organizing Myanmar's first-ever hackathons, I created *Phandeeyar: Myanmar Innovation Lab*, a 6,000-square-foot tech hub in the heart of downtown Yangon, the country's commercial capital.

Phandeeyar set about rapidly building the country's innovation ecosystem. We rolled out a series of programs to boost the pool of tech talent, to develop and support local startups and to grow the community. We launched initiatives to use technology for social impact, including an open data platform, a civic tech incubator and programs to tackle online hate speech and improve digital rights and security.

We rolled out programs to boost the tech talent, to support local startups and to grow the community.

There are still many significant issues in Myanmar and its connectivity revolution has not been all good; hate speech and mis- and disinformation have proliferated on Facebook with tragic real-world consequences. However, there is now a thriving tech community.

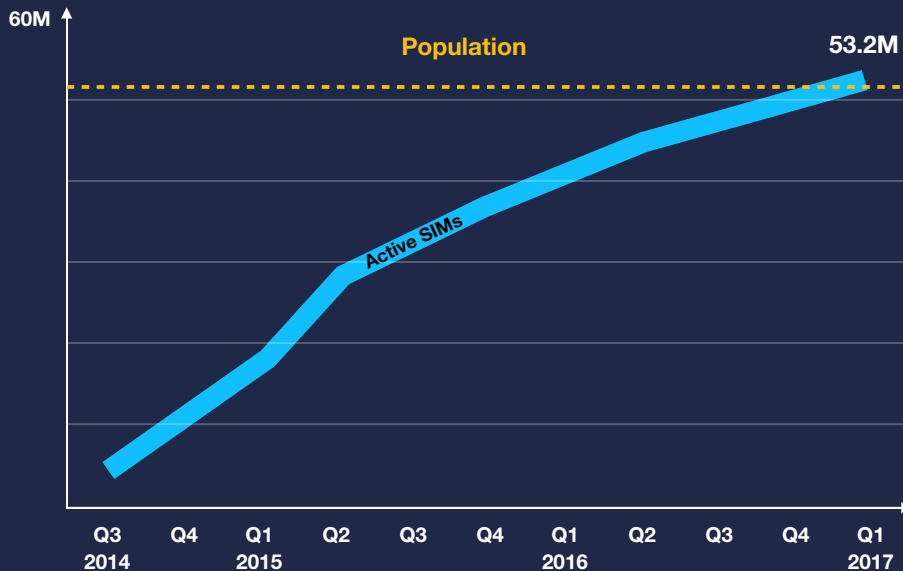
This note details the approach that Phandeeyar used to build Myanmar's innovation ecosystem. It is designed primarily for those who are trying to develop similar communities in other developing countries, as well as those who would support them (donors and

investors). It is not intended to be an exhaustive list of strategies or a blueprint. It's always important to take into account the local context, what's already being done and what the opportunities are. I welcome feedback and would be happy to elaborate on or clarify anything in this note.

One important point to note is that access to technology and connectivity is critical. Some developing countries have been slow to open up their telecommunications markets, which means that internet and mobile penetration rates are low and the internet is slow and/or expensive and/or monitored. Suffice to say that in these places addressing access is the first step.



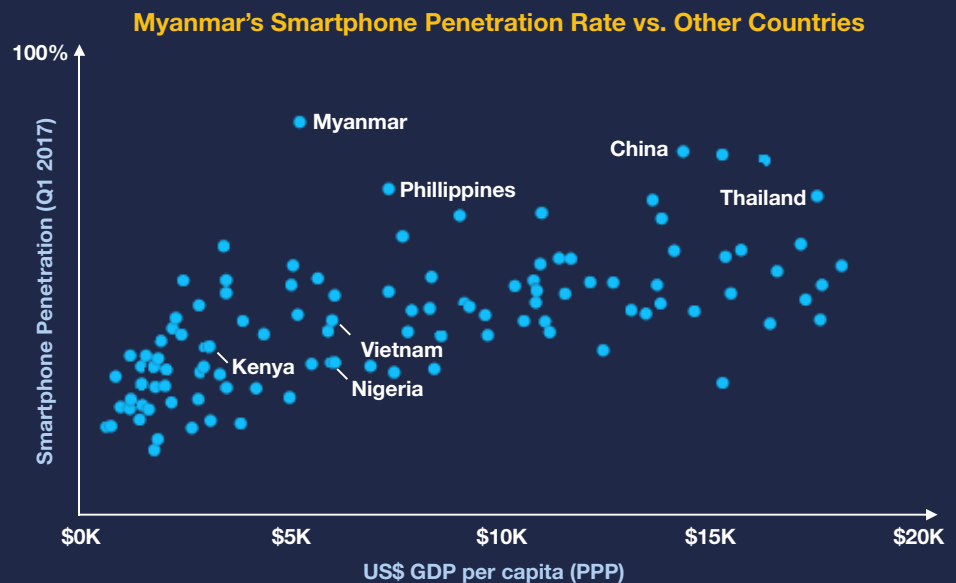
A CONNECTIVITY REVOLUTION



Data Source: Telenor, Ooredoo, KDDI

- Myanmar was largely **disconnected** until 5 years ago
- Now **>100%** SIM card penetration
- Got **connected faster** than any other country in history

- **\$23 smartphones** widely available
- Now **highest smartphone penetration rate** of any developing country (>80%)
- **Rapid adoption of Facebook** (now ~18M users) & **Viber** (now 46m users)

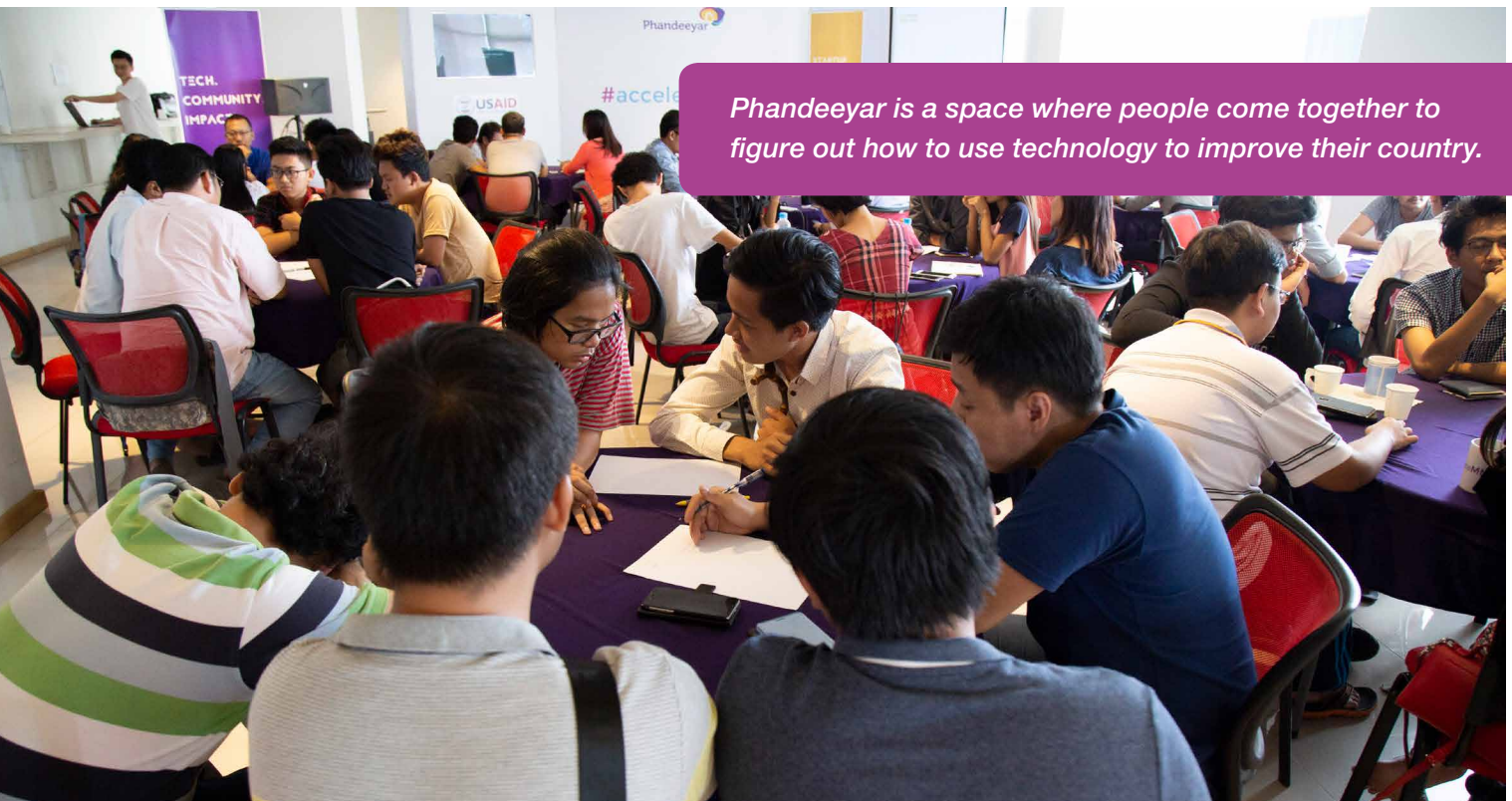


CREATE A SPACE

LITERALLY AND METAPHORICALLY

For an ecosystem to develop it's critical that there be places where the community can gather. Whether it is for specific purposes - such as workshops, seminars, meetups or hackathons - or just to hang out, work on side projects and make connections, space is vital. You can't create a community if you're constantly shuffling around hired venues on an ad hoc basis. In Yangon, there is an "ICT Park", but it is mostly for large companies, it's out of the way and there are few amenities. Phandeeyar, by contrast, is in the heart of downtown Yangon, just steps away from a major public transportation hub and surrounded by startups, as well as cafes, bars and restaurants.

The space doesn't need to be fancy - our first one definitely wasn't - but some things, such as a good internet connection, are essential. (I'd say power too, although it took us three years to get a place with a generator). More important is the atmosphere and energy. We prioritized this from the beginning. We chose the name Phandeeyar - which means "the creation place" - because we wanted the space to be a place where new things were built. We packed the calendar with events so that the place was always buzzing. Visitors often commented that the space had a "sense of possibility". Partly this was because we had the entire top floor of our building so you were above the hustle and bustle of the city and had spectacular 360-degree views of Yangon and the surrounding countryside. But it was also because we were constantly encouraging people to dream big. Ecosystem builders should create spaces both literally and metaphorically.



CREATE A BIG TENT

INCLUDE EVERYONE

Ecosystems need a certain critical mass to really take off. This can be hard to achieve early on when the community is relatively small. One way to deal with this is to include everyone. In more developed markets there can be all kinds of organizations and initiatives catering to specific verticals from fintech accelerators to civic tech hubs to makerspaces. This kind of approach usually isn't viable at the early stage of an ecosystem.

At Phandeeyar we consciously tried to build a big tent. We described ourselves as “a tech hub, but not just for techies”. We said that Phandeeyar was a place for anyone who was interested in doing cool things with technology. And we used a broad definition of “technology”. From the beginning we held events to cover as much of the potential community as possible. In our first full month (January 2015) there were seminars on venture capital and civic tech and meetups for startup founders, hardware hackers, designers, developers, women in tech and the digital media community. There were also events for change agents such as civil society organizations, activists and independent media. Throughout the year we also had activities designed to bring these different communities together, to get them collaborating and building products together. Almost all of our events in those days were free, widely promoted and open to anyone. The result was that we rapidly created a broad, inclusive community.



Phandeeyar included events for civil society organizations and other change agents from the very beginning.

MOBILIZE CONTRIBUTORS

Building an ecosystem is obviously not something that can be done alone; it takes lots of people contributing in lots of different ways. One of the most important things an ecosystem builder can do is to mobilize everyone who can play a valuable role; having a good team is essential. It's likely that the team will be small, so -- as with all startups -- it's critical to have people who can fulfill multiple roles. It's especially important that everyone is aligned around the importance of community. Phandeeyar benefited enormously from having a great early team. Everyone was highly motivated by the organization's mission, very dedicated and multi-skilled; in the first year one key member ran everything from a data hackathon to a startup competition, a "hardware hack week" and 3D printing workshops.

In addition to building a team of fellow travelers, it's important to create ways to get other talented and experienced people involved. This could be anything from speaking on a panel, running a workshop, or demoing a new product or service at a meetup. Mentor programs are particularly useful because they create a structured, ongoing way for people to share their skills and knowledge. One thing to remember: it's important to be flexible with your approach. What works for one person may not work for another. What matters is making it easy for people to contribute however and whenever they're able. At Phandeeyar we were constantly on the lookout for people who could support the ecosystem and not just people based in Myanmar; we would often get people from other tech ecosystems to take time out from their business trips (or even holidays!) to share their knowledge with the community.

*A selection of the mentors
for Phandeeyar Accelerator.*



BE ALL OF “GLADWELL’S FEW”

To play a key role in developing an innovation ecosystem you have to be valuable. At Phandeeyar we think in terms of service; everything we do is designed to support our community. In his blockbuster book “The Tipping Point,” Malcolm Gladwell articulates the “Law of the Few”. He identifies three types of people with rare gifts who are critical to the success of any kind of social epidemic or phenomenon: connectors, mavens and salespeople. At Phandeeyar we try to be of service by being all three types.

- **Connectors** - It’s super valuable to have a massive network and to be generous with it. If you’re always making useful connections and introductions then that is greatly appreciated. It also helps to create the kind of open and collaborative culture for which Silicon Valley is famous.
- **Mavens** - Being a source of critical information, especially about the market and industry, is another great way to be of service. If you always have your finger on the pulse then people will rely on you for important information.
- **Salespeople** - When you’re building an innovation ecosystem you’re constantly selling, whether it is to organizations outside the community whose services and resources would be useful to the ecosystem or to the community itself, getting them to participate in events and activities that help grow the ecosystem. All of this requires great persuasive skills.



Ecosystem building requires connectors, mavens and salespeople.

CREATE ROADMAPS & PATHWAYS TO SUCCESS

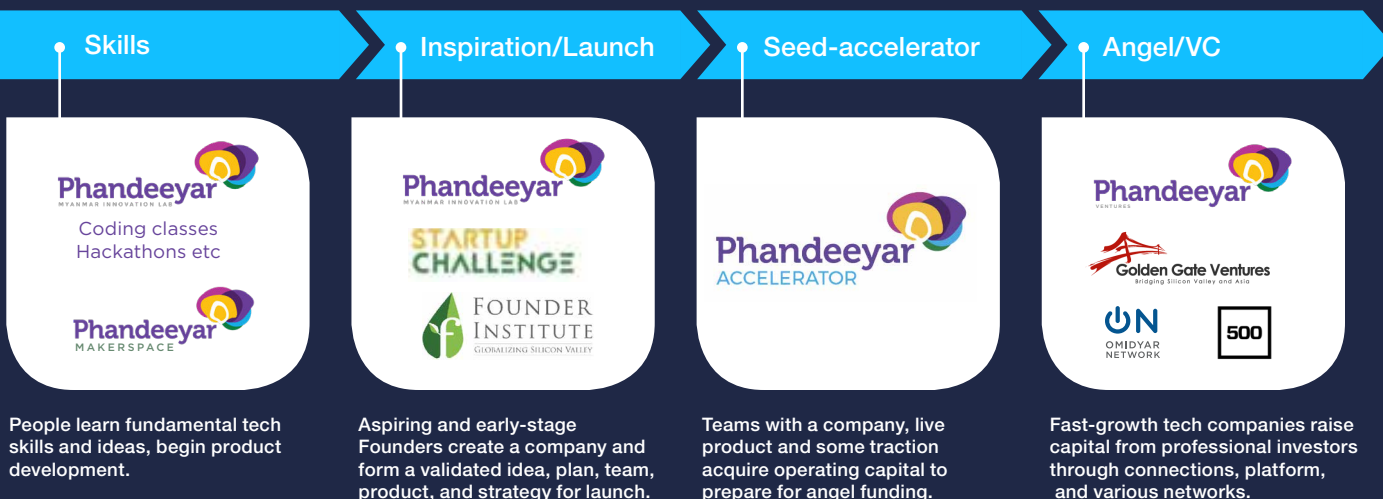
One of the challenges in early stage startup ecosystems in developing countries is that there are usually no local success stories. Sure, aspiring entrepreneurs can look to the U.S. and other more developed markets for inspiration, but the context is very different. The lack of local examples means that the paths for a startup - or even the very possibility of an entrepreneurial career - require great imagination. One way for ecosystem builders to deal with this is to create a clear roadmap for aspiring entrepreneurs; that is, to lay out a process through which someone could launch and build a startup. A critical part of this is showing the support that an entrepreneur could receive along the way. This includes - but is not limited to - money.

In Myanmar we do this as follows. For those at the earliest stage, there are regular workshops and meetups where people can learn about startups and get to know others in the community. For those who want to get started or even just try their hand, we offer “StartUp Challenge”. This is a nine-day competition in which aspiring entrepreneurs are taught the lean startup methodology, have the chance to form (or grow) a team and to develop and test an idea. The winners can enter a pre-Accelerator program in which they receive some money and support from Phandeeyar Accelerator to continue developing their startup. Alternatively, we also run Founder Institute Yangon, which is essentially night school for entrepreneurs. This is a part-time Silicon Valley developed course that, over 14 intense weeks, takes aspiring entrepreneurs through the process of developing an idea to launching their startup.

For anyone who is serious and has some traction, there is Phandeeyar Accelerator. Phandeeyar Accelerator, which provides \$25,000 plus six months of coaching and mentorship, answers the critical question: How can I get initial funding for my startup? Finally, we prominently feature and promote the startups that have raised seed and series A rounds, as well as those who have started re-investing in the community. All of these programs are designed to show that startups are a viable career choice and to make it easier for talented people to become entrepreneurs.

Phandeeyar's programs to develop Myanmar's startup ecosystem.

#accelerateMM



EMBODY THE ETHOS

Much of the success of Silicon Valley, the world's most famous innovation ecosystem, has been attributed to its culture. There's an extraordinarily high degree of openness and collaboration, a willingness to help others, tolerance for risk and acceptance of failure. In the last decade, the Valley's approach to building businesses has been captured in the lean startup methodology. In trying to develop innovation ecosystems in frontier markets it is critical that community leaders embody this kind of ethos. This helps to build the kind of culture that is needed.

As much as possible, I ran Phandeeyar like a startup. While the mission and goals of the organization were clear, there was a lot of flexibility in how we tried to achieve them. Especially in the early days, Phandeeyar was scrappy, opportunistic and much more focused on outcomes than process. We moved quickly and were highly responsive. In contrast to most Myanmar organizations, Phandeeyar was non-hierarchical, informal and collaborative. For a long time there were no job titles; everyone wore many hats and when something needed to be done everyone pitched in.

Perhaps most importantly, we tried to apply the lean startup methodology. We came up with hypotheses about what would help develop the community and then used our initial funding to run activities to test these hypotheses. We doubled down on what worked and junked what didn't. We were highly open and partnered with lots of different organizations, both local and international. By the end of our first year, we had clear evidence of what was working and what was needed. We used our track record and vision to raise an additional \$2.2 million and then began systematically scaling our efforts. An important part of all this was setting an example for the whole ecosystem.

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BRING ALL THE PIECES TOGETHER FILL THE GAPS

It's well understood that an innovation ecosystem needs a number of different things to succeed. These include funding, mentorship, services, and talent. In many early stage markets some (or maybe many or even all) of these pieces will be missing or not well connected. A critical role of the ecosystem builder is to bring these pieces together. And where there are gaps fill them.

This is why we created Phandeeyar Accelerator. It was a great way of bringing together most of the major components that the ecosystem needed. There were experienced people who could provide mentoring, but there was no easy way of accessing these people. There were larger companies that could provide critical support to startups, but again these were difficult to access. Phandeeyar Accelerator provided a structured way to assemble these resources. An essential element - early stage risk capital - was almost completely missing, so we provided that ourselves. Demo Day, the startup showcase that happens the end of the program, created a way of rallying local and international investors.

Phandeeyar Accelerator provided all the critical functions that the ecosystem needed.



\$25K
Investment



40+
Mentors



\$200K
Worth of free services



Free
Office space
and Internet



Investor
Network



Coaching
and training

WORK ON THE ENABLING ENVIRONMENT

Technology doesn't exist in a vacuum. How it is used and applied is very much affected by the environment it is in. Widespread, affordable access to connectivity is a critical first step. Assuming this is in place, some of the other factors that can have a significant impact on the development of local innovation ecosystems include the levels of digital literacy, the laws and regulations governing technology, startups and investing, and the role of large companies, including international technology companies. Those who work in technology often have a better understanding of these issues than those who have the most control over them. So while it may not be particularly sexy or easy to engage with legislators and regulators and influential companies and organizations, this is a necessary part of ecosystem building.

Trying to improve the enabling environment has been an integral part of Phandeeyar's work from inception. Hate speech is a problem on social media in Myanmar and, as Facebook usage soared, so did toxic content. Phandeeyar supported local groups that were trying to tackle hate speech and mis- and disinformation. It also pushed Facebook to address the issues with its platform. Together with several other local groups, Phandeeyar has also been actively building a digital rights movement. A key event is the Myanmar Digital Rights Forum which brings together leaders from civil society, business, government and media, as well

as experts from around the region to address issues such as privacy, data protection and freedom of expression. Low levels of digital literacy, misuse of social media and weak protection of digital rights all remain ongoing challenges in Myanmar.

Trying to improve the enabling environment has been an integral part of Phandeeyar's work from inception.

#SayNoTo66d

The New York Times

Zuckerberg Was Called Out Over Myanmar Violence. Here's His Apology.



BUILD A WARCHEST

ADDRESS SUSTAINABILITY

There's a limit to what can be created by volunteers holding meetups in cafes and borrowed meeting rooms. Similarly, in-kind support doesn't get you very far. To really grow, an ecosystem needs money. Money lets you support promising talent, get space and equipment, subsidize activities for the community and build a team so you can get more done.

Getting investors is likely to be difficult in these early days; the work at this stage more closely resembles creating a public good than making specific bets with high ROI. Some big companies may be able to contribute, but often this is through CSR or corporate philanthropy programs and funding is limited and/or very narrow in its scope. Foreign aid can be an option, but this is likely to be quite a lot of work and tied to very specific and time-sensitive programs. Ideally your money would be "untied", that is, with limited or no obligations so you can use it in the most appropriate way. The best source of this sort of money is likely to be private foundations and/or wealthy ("high net worth") individuals. Getting this kind of "core funding" can be very challenging, but it is extremely valuable.

After demonstrating the potential of a tech hub in Myanmar through two hackathons that were supported by small foreign aid grants and in-kind support from one of the new mobile network operators, I was able to raise \$400,000 of core funding from three international foundations. This enabled me to get a space, build a team and start running activities. Later, during that first year, I was able to raise money from some aid organizations and companies for specific initiatives. After we had further shown the impact that we could have, I was able to raise an additional \$2.2 million in multi-year, core-funding. While our work was supplemented by more program funding from aid agencies, it was the core funding that was critical; it enabled us to rapidly scale, inject much needed seed money into promising startups and plug the many gaps not covered by the aid money.

As well as raising money, it's important to develop a plan for financial sustainability. Grant funding won't last forever, nor do you want to depend on it. However, developing good business models for ecosystem building is challenging. Most tech hubs in early stage markets are still working on this. Fees from co-workers, events or renting out your space to others are usually very modest. Depending upon the market, there may be opportunities for research and consulting, although this can be a distraction from your main focus. Phandeeyar's strategy has been to try to develop the startup scene to the point where private capital - most likely a mix of both commercial and concessionary funding - would be willing to support our work investing in local startups. Phandeeyar's work on using technology for social impact is however likely to be primarily funded by grants for the foreseeable future.

Money lets you support promising talent, get space and equipment, subsidize activities and build a team.

PHANDEEYAR'S SUPPORTERS



ANTHEM ASIA



SCHMIDT FAMILY
FOUNDATION



UBER



The Asia Foundation



JobNet



aws activate



TODAY Ogilvy Myanmar



ARTICULATE A VISION

PROMOTE IT

For an ecosystem to develop rapidly there needs to be a vision; that is, an aspirational view of what the community could achieve over time. It is helpful if community leaders are painting a picture of the future. This should be something that gets people excited and inspires them. At any one time, there may be lots of different things happening, but it is powerful if this can be seen within an overarching narrative.

In Myanmar, we tried to create this from the beginning. At the press conference launching the country's first-ever hackathon - which happened before any new towers had been built - I focused on the opportunity that the rapid and widespread rollout of mobile networks would create: to use technology to accelerate Myanmar's growth and development. I used vivid and memorable language - "connectivity revolution" and "digital leapfrog" - and the team at Phandeeyar used this language all the time. At almost every event we explained the rationale for Phandeeyar and how the activity contributed to the overall goal. We spoke regularly to the press and at a relevant public events. We were always available to explain what was happening and put it in a broader context. We ran a strong and focused communications effort, including a vibrant Facebook page and a regular and comprehensive email newsletter. As a result, there was widespread awareness of the opportunity, as well of Phandeeyar and the growth of the technology community.

Speaking at TEDxYangon about Myanmar's digital leapfrog.



PACE THE WORK

Finally, it's important to remember that you can't create an ecosystem overnight. Many places want to be like Silicon Valley, but Silicon Valley has been decades in the making. There are many different parts to an ecosystem and they take time to develop. In many developing countries, fundamental building blocks of the economy, such as power, logistics, financial and legal systems, may be weak. Similarly, underinvestment in education systems is common, so even if entrepreneurial skills are high, it may take time to develop the technical skills necessary to build good products.

An ecosystem builder needs to pace the work. The critical task is to understand where the community is at and what are going to be the most useful things to move it to the next level.

The development of an ecosystem may not be linear. Lots of startups will fail, money might be slow to come or be funneled to the wrong initiatives and big companies or international organizations and NGOs will grab the talent. Dealing with all of this will take patience and persistence, but it's critical if developing countries are to really harness the potential of technology.

An ecosystem builder needs to pace the work. The critical task is to understand where the community is at and what are going to be the most useful things to move it to the next level.



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*The view from Phandeeyar's new
11,000 square foot downtown location.*

