Digital Sharing for Global Growth
Sharing resources, building economies
The digital sharing economy creates new markets, produces millions of job opportunities, and revives “sharing” – one of civilization’s oldest forms of economic and social empowerment – as a tech business model.¹

Dozens of digital sharing ventures are already driving economic and social change in Africa, Asia, and Latin America, and there is potential for these models to address some of the world’s thorniest development challenges.

Digital sharing is already massive, and here to stay. Make no mistake, this is not a trend. We estimate global sharing economy revenues to be $25 - $30 billion, and expect the global sharing economy to grow 25 - 30% a year for the foreseeable future.²

**What is the Digital Sharing Economy?**

**Sharing assets** – physical, financial, and/or human capital

**Between many** without transferring ownership

**Via a digital platform**

**To create economic value** for at least two parties

¹ The two largest digital labor-sharing companies alone (Freelancer.com and Upwork) have over 24 million registered freelancers.

² “The Sharing Economy: How will it disrupt your business?” PwC, Credit Suisse, Collaborative Consumption, Dalberg analysis.
Principles of Digital Sharing

Digital sharing initiatives that aim to address development challenges in emerging markets will need to incorporate three principles into their models. These principles have been essential to the success of digital sharing models in the developed world, and will be no less essential in developing countries.

Establish the Base for Digital Sharing

Trust

A digital sharing initiative must create trust between strangers, whether by building reputation tracking systems, reducing information gaps, or guaranteeing consistently high-quality experiences. Consider Airbnb, a now well-known service where local homeowners rent unused space to visitors. Lack of trust long prevented many from sharing their homes with strangers, so those valuable assets sat unused when the owner was away or only using part of the space. Features of Airbnb’s platform—such as user reviews, digital payments, and identity verification—increase trust between homeowners and potential renters, shrinking the trust barrier.

Smart Sharing

A successful digital sharing initiative must focus on “share-friendly” assets likely to create socioeconomic value: assets that are under-utilized, in limited supply, and highly price elastic. Airbnb has built itself on one of the world’s most “share-friendly” assets: locals’ homes. Owners have spare space (under-utilized); are often located in areas with scarce availability (limited supply); and are highly coveted by travelers, particularly during holidays and other peak travel times (price-elastic).

Affordability

A successful digital sharing initiative must reduce the marginal costs of sharing below the marginal benefit for the owner. In practice, this means digital sharing initiatives often focus on markets where transaction costs are high, since digital platforms typically reduce these costs by eliminating middlemen, providing real-time data, supporting digital payments, offering intuitive interfaces, and dynamically balancing buyers and sellers. For example, Airbnb provides a user-friendly interface, a range of listings, and a secure digital payment system while quickly responding to shifts in supply and demand.
Enablers of Digital Sharing

Create a Strong Foothold for Digital Sharing

The above principles are necessary but not sufficient. Scalable success requires four enablers:

Increase the digital footprint

Without the ability to interact with a digital platform – with a computer or smart phone – digital sharing is not possible.

Build literacy

Exchanging digital information requires some ability to read. In the future, user interfaces may evolve to no longer require literacy, but we are still far from that day.³

Make digital payments the go-to service

Most digital sharing enterprises depend on rapid processing of peer-to-peer transactions.⁴ Digital payments are in most cases the fastest and most secure way to send and receive cash.

Support entrepreneurs with effective regulation

Entrepreneurs build most digital sharing models, navigating complex regulations designed for older business models and not conducive to growth. Regulations should be tailored to digital sharing models.

³ There is no globally consistent measure for digital literacy currently tracked. However, the ability to read digital text is one of the first and most important prerequisites to being digitally literate. Therefore, we used traditional literacy as a proxy for digital literacy; admittedly an imperfect measure, but one we hope to improve over time if and when better survey data becomes available; ⁴ Rapid payment processing is at the core of many digital sharing business models. For example, in an interview on 11 June 2015, digital sharing executive Aashi Vel (CEO of Traveling Spoon) stated “in many ways we’re a payments processing company.”
The Importance of Trust in Digital Sharing

Trust is essential to the growth of digital sharing, and has an effect on other enabling factors. Across countries, there is a strongly positive correlation between trust (as measured by the World Values Survey) and frequency of peer-to-peer transactions (as measured by usage of mobile accounts to make payments) \((r = .63)\).

“Trust makes people amenable to digital sharing.”

- Shelby Clark, Founder, RelayRides
Digital Sharing Readiness

We see five signals for high growth potential in digital sharing: Trust, digital connectivity, literacy, digital payment usage, and regulations supporting entrepreneurial activity. We synthesized data on each of these into the “Digital Sharing Readiness Score,” a simple measure showing which developing markets are more conducive or more challenging environments for digital sharing.5

5 See Annex: Methodology section for a full overview of the calculation methodology.
What We Found

Here are some of the takeaways from the “Digital Sharing Readiness Score” for entrepreneurs, companies, and governments:

**Look beyond income per capita to gauge a country’s readiness for digital sharing.**
Wealthier countries tend to score better, but there are many exceptions. For example, Algeria is significantly wealthier per capita, yet Morocco fares better in digital sharing readiness.

**Focus on levels of social trust to determine readiness for digital sharing.**
Argentina, Chile, and Brazil share comparable per capita incomes, levels of technological development, a geographic region, and economic, cultural, and social ties. However, different interpersonal trust levels result in very different readiness scores.6

**Dig deeper: Sub-Saharan Africa may appear unready for digital sharing, but there is opportunity if you know where to look.**
Lack of social trust, difficult environments for entrepreneurship, and low literacy rates are barriers, but in “borderline” markets like Kenya, Senegal, and Rwanda, digital sharing can be tailored to overcome specific barriers. While digital sharing initiatives are operating in several countries with low readiness scores, they will tend to face more severe challenges than they would in countries with higher scores. In other words, lower scores are not a no-go zone on the map, but mean proceed with caution and pursue a tailored strategy. For example, partner with a local company or seek out creative ways to overcome gaps in trust (a la Safe Boda, a ridesharing app in Kenya in which drivers show certifications and training credentials).

**Be a first-mover in markets primed for digital readiness.**
Ghana and South Africa doubled their mobile connectivity rates over the last 5 years and Bostwana and Liberia show increased literacy, trust, and mobile payments. Much of Eastern Europe, Chile, Thailand, and Malaysia have above-average trust, connectivity, literacy, digital payments, and entrepreneur-friendliness.

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6 Trust was measured as a function of the rate of international homicides per 100,000 people. The data was obtained from the World Bank and the United Nations Office on Drugs and Crime: World Bank. “Intentional homicides (per 100,000 people)” ; UNODC. “UNODC Statistics”
The Power to Transform Emerging Markets

Commercial success stories, like Airbnb, Uber, and Kickstarter, are not designed for those at the base of the pyramid. The 2.2 billion people living on less than $2 a day typically do not have a room to rent, a car to share, or idle cash to lend.

However, that doesn’t mean the sharing economy is irrelevant to the world’s poorest. Quite the opposite. As digital sharing models grow in size and expand into new geographies, we think emerging economies are where these companies will truly flourish. Why? Because the heart of the model, sharing via technology, converts these markets’ liabilities – scarce assets and abundant labor – into opportunities.

What’s more, those in emerging markets are, as a whole, more disposed to share: 64% of people in the world with access to internet are willing to share their assets or services online for financial gain. In India, it’s 78%. In Mexico? 79%. In China? 94% of people with access to the internet are likely to participate in a digital sharing community, given the option. Compare that to the 43% of North Americans who express willingness to participate in online sharing. On average, we estimate that people in emerging markets are around forty to fifty percent more likely to engage in digital sharing – given access to the right tools – than people in the US and Western Europe.

Let’s zero in on just one sector: digital sharing in finance, often called “crowdfunding.” Roughly 600-700 crowdfunding platforms are operating in over 45 countries, delivering approximately $35 billion to entrepreneurs and small businesses through lending and investment. To put that into perspective, HSBC, the UK’s largest bank, lent just under $1 billion to its customers in 2014. Even more interesting: these crowdfunding dollar volumes doubled from last year, and are growing fastest in Asia and South America.

The key principles that underpin current digital sharing models are potent and globally applicable. Organizations that apply them successfully can create tremendous value. Here we’ve laid out how the digital sharing economy can address three pressing development needs:

Apart from the three examples we have chosen above, there are many other current – and future – applications of digital sharing models, from disaster relief to peer-to-peer education.

“Developing nations are already there. They are already ready for the digital sharing economy.”
- Parag Jain, CEO and Co-Founder of Juggernaut, a start-up powering on-demand tech platforms

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7 Interview with Dalberg
8 Nielsen Global Survey of Share Communities, Q3 2013, Dalberg analysis.
**Matchmaking in the Digital Age**

Globally, 75 million youth are unemployed and another 536 million are underemployed, hindered by a lack of formal full-time jobs and a mismatch between skills and employer needs. These youth face a “scarring effect”: they are more likely to face unemployment as adults and an earning gap as high as 20% compared to employed peers.

Thoughtfully designed digital sharing connects youth in emerging markets with employers that need immediate short-term work. Employers find freelancers through an online platform depending on alignment of availability, pay, and skills. The platform matches and verifies the identity of both parties, and facilitates the digital transfer of payments, IP, and confidentiality agreements as necessary. The freelancer provides high-quality work, and the employer pays, provides feedback, and rates their experience.

In an ideal scenario, over time, the young freelancer builds skills, a portfolio of work, and a credible personal brand. Experienced freelancers on Upwork based in India and the Philippines earn hourly rates comparable to those in the United States and Western Europe. The model is a reality: WorknHire and Babajob (India), mJobs (Ethiopia), Jolancer (Nigeria), 1task1job (Cameroon), GetNinjas (Brazil), and Go-Jek (Indonesia) are all examples of growing, real-time employment platforms in developing countries.

Many of these on-the-spot work opportunities are low-earning on a per-job basis, and competition between job-seekers often drives down rates. However, in an economy like South Africa’s where 56% of young people are looking for work, these new platforms create another, very welcome, option.

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10 ILO. “World Employment and Social Outlook - Trends 2015”. This does not include youth who have dropped out of the labor force.; World Bank. “Jobs for Youth Seeking Solutions”; Dalberg Global Development Advisors and Rockefeller Foundation. “Digital Jobs in Africa: Catalyzing Inclusive Opportunities for Youth”;

A Multi-Trillion Dollar Opportunity

Only 15% of the 400 million micro-, small, and medium enterprises (MSMEs) in developing countries have access to credit. The unmet investment need exceeds $2.5 trillion in part because physical bank branches are inaccessible, investable ventures have high search costs, and banks, investors, and business ventures do not trust one another.\(^\text{14}\)

Digital crowdsourced lending and investment platforms can match SMEs with small investors. In fact, one already exists: VC4Africa connects investors to pre-vetted, seed-stage African start-ups via a digital platform, lowering search costs and trust barriers. Start-ups gain exposure to investors from 159 countries as well as mentorship opportunities. The platform is particularly helpful for start-ups operating outside of Africa's 'Tier 1' cities like Nairobi and Lagos, which have much greater access to local venture capital. In 2014, VC4Africa's startups received $26.9 million through the platform.\(^\text{15}\)

The other iterations of this model could show an SME's credit history and performance on the platform, and then algorithmically segment its financing needs into bite-sized notes (e.g., $5-$5,000) to distribute to many individual investors. Cost of entry to the platform would need to be low and investors would benefit from diversification, increasing financial inclusivity for both lenders and borrowers. The practice fuses the age-old idea of peer lending with digital technology, making it possible to scale to thousands of users in months or even weeks.

“\text{If our mission is to connect people, why would we want to slow down that process by getting in the way? We trust our members to connect with the individuals they need to do business with. We seek to support them in this process but we don’t want to get involved.}”
- Ben White, Founder of VC4Africa\(^\text{16}\)

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Extracting Full Value from Farmers’ Crops

The world’s 450 million smallholder farming households – over 2 billion people – coax 70% of the world’s food from their two-hectare plots, but 25-50% of their crops perish after harvest.\(^{18}\) The owners of much-needed processing and storage equipment have difficulty finding smallholder farmers who can pay to use the machinery, and they may not trust farmers to foot the bill.

What if we used intelligent voice recognition (IVR) or an SMS-enabled platform to link owners of expensive processing and storage assets (such as mills, roasters, and separators) to cash crop-focused co-ops and SMEs? The platform would match equipment owners to co-ops that pool resources for farmers who can pay individually, giving smallholders access to assets that would otherwise be out of reach.

Examples of this exact model do not yet exist, but the main elements are in progress. The Dutch Agricultural Development & Trading Company (DADTCO) developed a mobile, self-powered cassava processing unit being used in Ghana, Mozambique, and Nigeria to source cassava from thousands of smallholders. Zambia’s Rent-to-Own leases processing equipment to smallholders who eventually purchase assets in installments.

Translate Promise into Reality

We can and should apply digital sharing to tough development challenges. We call on funders with experience in tech to support the growth of digital sharing models in three ways: **Advance** incentives, **author** insights, and **advocate** for light-touch regulatory approaches.

**Advance** incentives for entrepreneurs, incubators, and accelerators in developing countries to experiment with digital sharing.

Though not perfect, prize models can be effective in entrepreneur-rich environments like digital sharing where “solution creators” are willing to accept risk. Prizes for technology breakthroughs have a storied history of stimulating entrepreneurial investment by creating competition. Prize models could include “exemplar” prizes that crown a single winner with the aim of defining excellence, and “showcase” prize models, which allocate funds to a handful of innovative winners to stimulate private investor interest in the space as a whole.

Development actors that eschew a prize model could of course consider more traditional investment approaches to digital sharing, such as technical assistance. A benefit of technical assistance is that it can be closely tailored to the needs of individual digital sharing organizations. It can also infuse software development expertise, provided the right partners are selected, helping to overcome the shortage of developer talent that stymies some tech initiatives.

*Example:* Traveling Spoon won a showcase prize from University of California, Berkeley’s Venture Lab; gaining recognition helped them to establish credibility and push their model forward.  

**Advocate** for light-touch, bespoke regulatory approaches that support the growth of digital sharing.

The digital sharing economy is a different way to exchange goods and services and therefore requires different regulatory approaches. Sofia Ranchordás — Resident Fellow at Yale Law School’s Information Society Project and Professor of Law at Tilburg Law School — argues that a lack of regulatory frameworks in developing countries is the number one barrier facing digital sharing economy firms. She says that limited, light-touch regulation will help to generate innovation by building user trust in digital sharing platforms.

Of course, not all regulations are created equal. Regulations designed for industry incumbents are generally detrimental to the growth of digital sharing initiatives. For example, regulations that force every individual who wishes to share their living space on Airbnb go through a lengthy and costly hotel permitting process would quickly halt the platform’s growth. Applying these types of legacy regulations to digital sharing in developing countries in order to protect the privileges of market leaders would threaten the growth of promising models, and the income-generation possibilities they provide.

*Example:* Uber requires its drivers in Mexico to pass polygraph tests because criminal background information is inaccessible. A regulatory framework mandating the sharing of criminal background checks with ride-sharing initiatives would help increase public trust.

**Author** in-depth research.

Right now we have only a vague sense of what people want to share – we need much better data on the supply and demand in each market to help companies and entrepreneurs spot and pilot new digital sharing models. New research could fill three information gaps:

1. The digital sharing marketplace: including market size and segmentation, barriers to growth, and relevant policies and regulations;
2. Business models: common challenges and solutions across the developing world, keys to success and major pitfalls, and an understanding of which business models gain traction;
3. User needs: contexts and motivations for sharing, sharing behaviors, and user wants and needs to design better sharing solutions.

*Example:* a knowledge aggregation hub with valuable data from market research, business surveys, and human-centered ethnographic research would go far and could be an opportunity for someone to gain “first-mover advantage” by building this platform.

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Design for Inclusivity

While we are excited about the potential of digital sharing, these models are also no panacea. With French taxi drivers on strike and rising concerns around the implications of the “gig economy,” negative consequences of sharing economy models will have to be monitored closely. Additionally, asset-sharing models, like Airbnb, (as opposed to labor providing models, like Upwork), favor asset owners by definition and therefore may worsen inequality in some environments.

Nonetheless we think there is a strong case that supporting current models or pilots can be hugely beneficial in emerging economies by creating livelihoods, promoting asset building, and improving access to finance. In particular, many emerging markets are characterized by scarce assets and abundant labor. Digital sharing models can convert both of these problems into opportunities, by sharing limited assets more efficiently and creating opportunities for workers to find jobs exactly when and where they are needed.

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This article aims to serve as the start of a roadmap for applying innovative digital sharing approaches to uplift, empower, and serve lower- and middle-income individuals in the developing world. Its findings draw from interviews with digital sharing companies in both developed and developing countries, and from investors, academics, journalists, and development professionals interested in supporting the growth of the global digital sharing economy. We are immensely grateful for their insights.

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Annex: Methodology

Metrics and Sources

We measured digital sharing readiness for countries with GDP per capita below $20,000.

The map shows composite scores for the 119 countries with fully available data on the five input metrics for the latest year available:

**Trust:** A combination of three equally weighted sub-metrics: (i) Number of intentional homicides per 100,000 people,20 (ii) Perceived corruption by country,21 and (iii) Degree of trust toward strangers (see rationale below).

**Connectivity:** Mobile subscriptions per 100 people23

**Literacy:** Literacy rate24

**Digital payments:** Percentage of individuals who used an account to make a transaction through a mobile phone.25

**Public and private support for entrepreneurship:** (i) Venture capital and private equity investment attractiveness by country,26,27 and (ii) ease of doing business as determined by regulations on entrepreneurial activity.28

Analysis

The three different metrics for measuring trust were used to reflect the multiple dimensions of trust necessary for successful digital sharing: a basic sense of safety, which is important for sharing rides, homes, and personal information; trust that the economic and justice systems will function fairly in case things go awry; and trust in strangers, which is important given that virtually all digital sharing transactions are between strangers.

This analysis is a preliminary assessment, which we hope to expand upon and make more robust over time. For each indicator, we aimed to answer the question, “Is this country a more or less challenging environment for digital sharing than the median?” Hence, we began by taking the median value for each indicator, and divided the indicator values for all countries into quartiles.

Countries whose metric fell in the first quartile (the worst outcomes for digital sharing) were assigned a dummy variable of 0. Those that fell into the fourth (best) quartile were assigned a dummy variable of 9; countries with indicator values in the second and third quartiles were assigned values between 1 and 8. These dummy variables were then summed for each country across the five indicators to develop the reported score, out of a possible total of 45.

Hence, a score of 43 (equivalent to New Zealand or South Korea) should be interpreted as “this country scored in the highest quartile on all five indicators, suggesting a highly supportive environment for digital sharing economy, and is likely to see growth in digital sharing over the next decade.”

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