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Characteristics of “Walled Garden” Crowdsourcing Platforms for Global Development

Research-in-Progress

Abstract

Technological advances in distributed labor have made it possible for low-income individuals in developing nations to have access to labor opportunities from around the world. Seeing opportunities to develop skilled labor forces, governments, and private groups are currently seeking to utilize distributed work and increase the prosperity of citizens. In this *research in progress*, we present a dual case study of two efforts in online outsourcing to aid in job growth, employment of marginalized populations, and participation in the digital economy for two nations, Kenya and Malaysia. We contrast the different approaches based on our initial data collection efforts. More data including documents and interviews will be collected before analysis is complete.

Introduction

Technology has changed the way work is done in every industry. Work practices of the industrial age give way to those of the digital age such as remote work, flexible work, and on-demand work. A survey by the World Economic Forum cites “Changing work environments and flexible working arrangements” as the top driver of socio-economic and demographic change (World Economic Forum 2016). In today’s digital era online outsourcing has emerged as a potential alternative to traditional employment. It is transforming where, when, and how work is performed. Employers can obtain broader access to specialized skills, faster onboarding, and 24-hour productivity. Workers can now compete in global job markets, from anywhere with an Internet connection.

Online Outsourcing is the contracting of workers and to supply services or perform tasks for providers via Internet-based marketplaces or platforms. These platforms allow clients or “buyers” to outsource their paid work to a large, distributed pool of remote workers while enabling coordination, delivery and quality control of these services. There are many Internet platforms (websites) for online outsourcing; each may vary as to which types of work enabled, or expertise of the crowd.

Over millennia global citizens have repatriated to seek employment opportunities and work while sending money back to the family. This new wave of online outsourcing may enable more workers to stay at home while having access to more opportunities through online outsourcing. It also may enable a new form of impact sourcing, which is outsourcing work to be done by underserved population such as the physically disabled, unemployed single mothers, and the poor.

This study presents two case studies of large-scale efforts to utilize online outsourcing to benefit underserved populations. These efforts seek to source work from Western and Asian countries and have underserved populations perform the work in Malaysia, Nepal, and Kenya. We draw out contrasts between these cases and discuss significant issues they raise.

Literature Review

Crowdsourcing and Microtasks

Crowdsourcing has become a popular term to describe how the Internet brings people together for exchanging ideas or working together. Crowdsourcing enables new forms of digital labor including crowd work (see Figure 1). Amazon’s Mechanical Turk website was one of the earliest platforms to bring people together to accomplish incredibly small tasks, known as “Micro Tasks”. The common microtasks are content creation, content moderation, categorization, product matching, search relevancy, transcription, and translation. Microtasks seek to separate labor into its smallest basic

elements so that each element can be performed by a human being, in front of a screen, in a short amount of time and be paid for by the employer.

In many ways, Amazon was the founder of this industry when it set up Mechanical Turk (mTurk) in 2005 to find duplicates among its web pages describing products. Soon, other small tasks that computers could not perform were listed on the site, such as merging massive product libraries from different vendors. Due to nuances, computer algorithms could not always discern which products were identical and thus “human computation” was necessary.

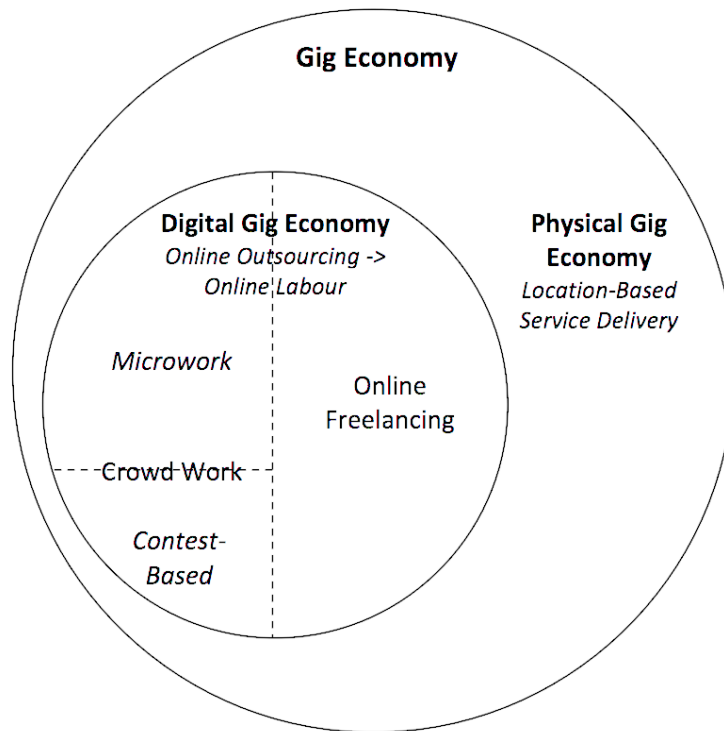


Figure 1. Microwork as part of the Gig Economy (Malik et al. 2017)

Crowd work is mediated through centralized platforms. These platforms connect workers (suppliers) with buyers (demand) and provide helpful services to both parties. Platforms have an interest in growing both the demand and supply, and thus generally open for anyone to join the platform. In contrast, walled garden platforms seek only to allow workers from a certain group (such as the poor) to join the platform. Walled garden platforms exist to funnel work to a needy population, rather than an open call for anyone on the internet.

Platform name	Headquarters	Founded	Type
Upwork (merger of oDesk and Elance)	California, US	2015	Double auction
oDesk	California, US	2002	Double auction
Elance	California, US	1999	Double auction
Freelancer.com	Australia	2009	Double auction
Guru.com	Pennsylvania, US	1998	Double auction
Peopleperhour	UK	2005	Double auction
Fiverr	Israel	2009	One side (seller) posted
Rev.com	California, US	2010	Online labor agency
MobileWorks	California, US	2011	Online labor agency
CloudFactory	Kathmandu, Nepal	2010	Online labor agency
Crowdsource	Missouri, US	2012	Online labor agency
CrowdFlower	California, US	2007	Online labor agency
iWriter	Indiana, US	2011	Online labor agency

Table 1. Major Crowdsourcing Platforms (Wood et al. 2018)

Walled garden platforms face unique challenges to growing their platform. On the supply side, they are limited to a small subset of workers (e.g. Malaysian citizens in the bottom quartile of the socio-economic strata). On the demand side, they often have to spend a lot of money to attract demand, and spend time dividing up the work into micro-tasks. A few walled garden platforms have developed (see

Table 2), some receiving help from the state. As these platforms seek to employ the poorest and most needy populations, this is similar to the concept of impact sourcing. We discuss this in the next section.

Organization Type	Name	Location	Services Offered
State Sponsored	NaijaCloud Initiative	Nigeria	Training and Awareness
State Sponsored	Youth Employment Program	Khyber Pakhtunkhwa (KPK), Pakistan	Training and Awareness
State Sponsored	eRezeki	Malaysia	Training and Awareness
Non-profit	Samasource	Kenya, India, Uganda	"Walled Garden" Platform, Training
For profit	CloudFactory	Nepal and Kenya	"Walled Garden" Platform and Training
For profit	Crowdsource Asia	Malaysia	"Walled Garden" Platform, and Training

Table 2. Walled Garden Platforms and State Sponsored Digital Labor Initiatives

Impact Sourcing

Impact Sourcing is also known as socially responsible outsourcing that seeks to employ people who have limited opportunity for sustainable employment. The nature of some forms of online outsourcing makes it amenable to be performed by the low skilled that may have no other job alternatives. Governments have taken note of this, and through government programs, unemployed youths in Palestine and New York City have performed crowd-work and moved on to higher skilled work. Samasource has had great success giving work to women all over the world through their platform (El Maarry and Balke 2015).

The World Bank has recently started long-term research projects to evaluate the feasibility of online outsourcing as a potential job source for large groups of unemployed yet college educated in Kenya (Bank 2015). The Rockefeller Foundation has launched the Digital Jobs Africa initiative that seeks to catalyze new sustainable employment opportunities for youth in 5 African nations (Carmel et al. 2014; Heeks 2013).

This motivates our research question:

RQ1: How are walled garden outsourcing platforms developed to enable the socio-economic development of the populations they serve?

Research Method

We examine the experience of two recent efforts in a dual case study. As there are few case studies and little knowledge about how government entities can develop national workforces through online outsourcing models, we believe our research question lends itself well to a case study approach.

We employ a dual, critical realist, longitudinal case study (Lee 1999; Yin 2003) was undertaken. Case studies are useful for gaining detailed knowledge about phenomena to which theoretical propositions have not yet been applied (Eisenhardt 1989). They are well suited to describe issues in practice, and capture organizational contexts in rich detail (Benbasat et al. 1987; Lee 1999).

Our data collection is ongoing, and we present below a preliminary analysis of the data. At this point, data has only been collected through publicly available sources accessible on the internet. Future data will consist of interviews with stakeholders, the collection and analysis of archival documents, both public (organization website, press releases) and private (emails, photos, documents). These qualitative data sources (documents, interviews) are known to have complementary strengths (Mason 2002).

We present a description and preliminary analysis of our two cases in the next sections. Cloudfactory is a BPO that operates in Nepal and Kenya and has five years' experience of employing disadvantaged populations via online outsourcing. eRezeki a recent effort by Malaysia's Multimedia Development Corporation (MDeC) to employ workers from the "bottom of the pyramid." These two cases were chosen as they are the largest and most significant efforts in utilizing online outsourcing for socio-economic development (Lacity et al. 2016).

Cloudfactory

Cloudfactory allows technology companies to allow human-powered features to their software, through its online work platform. For example, one customer of Cloudfactory, Expensify Inc., enables users to easily submit corporate expense reports by taking photos of receipts. These receipts are sent to workers at Cloudfactory that can easily fix mistakes that computers are not able to recognize (Lehdonvirta 2016).

CloudFactory offers four services (see Figure 2): PaperText, which extracts data from documents (often handwritten); SpeakerText, which extracts data from audio and video; ImageData, which extracts data from images and photos; and web data, which collects and extracts data from the Web.

Figure 2. Services offered by Cloudfactory



Funding and Growth

After taking a two-week vacation to Nepal in 2008, the founders of Cloudfactory decided to relocate there and start a software development business. In 2009, they started to develop the beginning of the crowdsourcing platform. The company raised series-A funding in 2015. Investors include David Clouse, founder of the vacation-rental site VRBO, and the Rockefeller Foundation, which recently invested \$2-Million dollars to develop the SpeakerText offering in Kenya. Cloudfactory has over 3,000 workers in Nepal and a growing office in Nairobi, Kenya.

Recruitment and worker support

Cloudfactory has found that recruiting teams of people who have pre-existing relationships has proven more effective than hiring individuals. Often friends from college or relatives form teams and submit a joint application. Teams complete a thirty-minute exam on Facebook as part of the hiring process. Workers often work from home but meet once a week to get skills and leadership training where they set goals and hold each other accountable.

eRezeki

In June 2015, the Multimedia Development Corporation (MDeC) an arm of the Malaysian Government launched the eRezeki (*livelihood* in Malay) program (MDEC 2015). The platform allows the Malaysian citizens from the lowest economic strata (bottom 40%) to generate fixed and stable digital income for Malaysians by performing crowdsourcing microtasks (Arshad et. al 2014). The government's goals are to provide high-performing digital workers with an additional RM500 a month (roughly \$122). In Malaysia's 2017 budget the eRezeki program was allocated a budget of 100 million MYR with a target of working with 300,000 individuals in the B40 – the poorest 40% of the population (Chua 2016).

Recruitment and worker support

Dozens of community-based digital work centers (*pusat erezeki*) have been established where workers can receive training and perform work. Workers are able to work at home or in digital work centers. Upon registering workers need to state their income and provide their government-issued ID number. The program is open to families that generate less than RM 4,000 (\$980 USD) in monthly household income.

An extensive marketing campaign on social media (Facebook, Twitter, etc.) and YouTube promote potential workers to sign up to work.

Preliminary Findings

While our research is ongoing, these two cases represent the most significant efforts of microwork online outsourcing platforms with a social mission to develop underserved populations (Ojo and Raman 2016.). They provide an interesting contrast in their approach. Table 1 summarizes the major differences as reflected in our case analysis. The success of the platforms can be viewed in the economic impact of the workers of the platform.

Table 3. Comparing Cloudfactory and eRezeki

	Platform	
	Cloudfactory	eRezeki / crowdsourceAsia
Funding	Private	Government
Locations	Kenya, Nepal	Malaysia
Joining Requirements	Nepal or Kenya resident must join as a team ²	Malaysian Citizen, income < RM 4,000 monthly (\$980)
Work Unit	Teams of 7	Individual
Qualifications	Worker teams need approval from in-country manager before working	Open to any qualifying Malaysian citizen
Training	Team-based training required weekly	Individual training optional
Work Place	Home	Home or Digital Work Center

Other research has surmised that lack of training, lack of demand generation, legislative and government barriers and worker perceptions to be the most significant barriers to platform creation (Bank 2015). However, examples from our case studies point to how these barriers may potentially be overcome.

Perhaps the most significant challenge facing both platforms is demand generation (finding work for workers to perform). However, with a partnership with the state these platforms can have the backing of the state while finding more work.

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