Exploring an Impact Sourcing Initiative for a Community of People with Disabilities: A Capability Analysis

Karsten Eskelund, Richard Heeks, Brian Nicholson

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Karsten Eskelund[1][0000-0002-7001-0091] ✉, Richard Heeks[2] [0000-0002-4551-2208] and Brian Nicholson[1][0000-0002-6729-9874]

[1] Alliance Manchester Business School, University of Manchester, UK
[2] Centre for Development Informatics, University of Manchester, UK
karsten.eskelund@postgrad.manchester.ac.uk

Abstract. The purpose of this paper is to bridge the knowledge gap on how new technology, like online platforms can help people with disabilities (PWD's) improve their capabilities.

The paper presents an interpretive qualitative case study of individuals who were all trained to be online freelancers using digital "gig" work platforms (eg. Upwork) by "Virtualahan", a social enterprise based in the Philippines. Data is analyzed through the lens of Bjørn Gigler's Alternative Evaluation Framework (AEF). Interview and ethnographic data provide the evidence to analyze the achieved functionings for PWD and the barriers and facilitators of the functionings.

The findings indicate that online technology facilitated employment has wider implications than an improved financial situation. Employment through online technology increased the informants self-confidence and how they are perceived by their families.

This paper contributes to the literature on PWD's, capabilities and online gig work, and how such work can help to builda community for PWD's. Practical contributions of the findings for policymakers, consultants etc. are guidelines for helping PWD's to find online employment, which can contribute to their capabilities.

Keywords: Impact Sourcing, ICT4D, People with disabilities(PWD), society, capabilities approach.

1 Introduction

From previous research, it is known that people with disabilities (PWD's) regularly experience challenges in obtaining employment [13,17]. They might be faced with difficulties in travel due to physical disability or a hearing or sight disability may disqualify from opportunities. They are often being discriminated against and seen as having a lack of knowledge [26].

A gap in knowledge is related to the effect of training and utilizing of new technology gives people with disabilities opportunities "to live a life they value", [23]. In this paper we use an evaluation framework developed by Björn Gigler [6] to understand

how new technology used in an impact sourcing initiative influences communities of PWD's

The data for a case study is collected through interviews with PWD's who have all undergone training by Virtualahan, a social enterprise located at Mindanao Philippines. Virtualahan consider itself as an impact sourcing organization, providing training to and hiring people from a disadvantaged background [11]. Previous impact sourcing research have focused on rural communities [21]. There is a gap in the research regarding how impact sourcing can contribute to a community of people with disabilities.

This paper responds to a call about how technology can help people with disabilities [28:28]. According to Walsham, ICT-initiatives which attempt to help disadvantaged people often does not reach the most disadvantaged groups. Such groups include people with disabilities, which is to a huge extent neglected in aca-demia.

With this as a background, we examine the following research questions:

RQ: How does new technology influence capabilites of a community with people with disabilities?

We contribute to previous literature in 3 ways: 1) we reduce the knowledge gap regarding how an impact sourcing initiative, in the shape of training and by utilizing new technology, can help people with disabilities can get jobs they otherwise would not have been able to get and how this impact their communities, 2) apply the capabilities approach in a novel domain of an impact sourcing initiative for PWD's, and 3) offer guidance to practitioners and policymakers.

The paper proceeds as follows: In section 2, we review the literature on impact sourcing, disability and work, and outline the capabilities approach that shaped our field-work and data-analysis process. In Section 3, we describe the case study. Section 4 outlines the research methodology. In section 5 the findings are presented, and these findings are analysed and discussed in section 6. Finally, in section 7 we conclude.

2 Literature Review & Conceptual Framework

Three bodies of literature are presented in this section. First, we review the litera-ture regarding impact sourcing. Secondly, we review the previous literature regarding disability and in particular disability and work. Finally, we present the framework that guides this research and in particular look into how this framework has previously been used in research about disability.

2.1 Impact sourcing

Impact sourcing is a recent development within the wider sourcing of information technology (IT) and business services (BPO) industry. Specific impact sourcing vendors are established not just to maximize its profit, but also to contribute to general development of communities [11]. Traditionally impact sourcing is defined as "the practice of hiring and training marginalized individuals to provide information technology, business process, or other digitally-enabled services who normally would have few opportunities for good employment" [2:401]. Previous impact sourcing liter-

ature includes studies of communities like women in a social enterprise [8], youth in rural areas both in India and in Pakistan [16,21], and prisoners [12]. New technology like digital platforms, defined as "a set of digital resources – including services and content – that enable value-creating interactions between external producers and consumers" [3:381] have created new ways of do-ing business. In particular, online outsourcing platforms, where clients can contract work from potential workers across the world have changed the dynamics of the out-sourcing industry [9].

What we do not know is how impact sourcing initiatives can have implications for communities, and not just for individuals. As capability development of individuals does not necessarily mean development of the communities that these people belong to, it is important to analyze the implications also for communities.

2.2 People with disabilities and work

Disability can be defined as "a problematic interaction between an individual who has a specific, functional requirement and an environment that is designed without taking that requirement into consideration" [24:108]. According to this model, the disability shall not prevent a person with a disability to live the way they would like to live. This is called the social model, as opposed to the medical model, where disability is seen as medical in nature and where disability is the object of medical care [24:106].

In this paper we rely on the social model. The main reason for this is that we judge that model to best explain the relationship between the individual PWD and the socie-ty, and hence to describe their opportunity to increase their capabilities.

There are many reasons why companies do not hire people with disabilities. Some main reasons include fear of additional cost related to the work environment, lack of knowledge about how to handle people with disabilities and fear that the employer will not be able to discipline people with disabilities due to potential lawsuits [10]. Employees with disabilities are assumed to be incompetent, not productive and create undue hardship for an employer; hence, they face limited career advancement opportunities [13].

Most of the literature on disability and work is from developed countries (typically USA). Thus, we have limited understanding of the circumstances of PWD's in developing countries but they are likely to face more constraints due to institutions such as lack of welfare benefits or State support [1,5,15]. Previous research indicates that the employment rate for people with disabilities in developing countries, including the Philippines, is generally lower than the employment rate for people without disabilities [17,18].

Previous research has also shown how digital technology such as online platforms can help PWD's to find freelance work [4,25]. However, there is a gap in this research regarding what further implications impact sourcing can have on communities of people with disabilities.

2.3 Capability approach and marginalization

The Capabilities Approach, developed by Amartya Sen is the foundation for the analysis in this paper. The capabilities approach consists of three main pillars; function-

ings, capabilities and freedom. Sen distinguishes between functionings and capabilities by stating: “A functioning is an achievement, whereas a capability is the ability to achieve. Functionings are, in a sense, more directly related to living conditions, since they are different aspects of living conditions. Capabilities, in contrast, are notions of freedom, in the positive sense: what real opportunities you have to live the life you may lead” [22:36]. Freedom is defined as “the expansion of capabilities of persons to lead the kinds of lives they value – and have reason to value” [23:18].

Sen has been criticized for not defining specific capabilities [19,20]. Other authors have used Sen as a starting point for alternative frameworks, where specific capabilities are defined. One such example is the alternative evaluation framework AEF, created by Björn Gigler, which is used in this paper [6,7].

Gigler put people’s assets and capabilities in the center, and then examine how information technology might help them to improve their information capabilities, and ultimately improve people’s human and social capabilities. A key element of the framework is the role that intermediary organizations, or brokers, as Gigler call it play in the development process [14]. Intermediaries might act as a liaison or a broker between individuals or a group of people in a particular community and a group or source of information outside the community.

Gigler further stresses the concept of power and that “one of the most important assets of poor people is their strength to form groups and organizations at the com-munity level and to collectively pursue goals based on a shared vision” [6:16]. By this, Gigler focuses on empowerment of not just individuals, but empowerment of communities as a whole. He then distinguishes between indicators for individual empowerment and indicators for community empowerment, while at the same time acknowledging that there is a clear link between these.

3 Case Description

All interviewees are PWD’s who have been trained by Virtualahan, a social enterprise based in Davao in Mindanao, the southernmost main island of the Philippines. Virtualahan trainees were selected because they all fit into the profile of people we wanted for this study (people with disabilities in developing countries). Virtualahan was very helpful regarding helping us to get access to the informants. Our unit of analysis is the individual trainees and not Virtualahan as an organization. The reason for this approach is the focus on the impact the capability building of the individuals, not the growth of the organization. Although Virtualahan has its main base at Mindanao, the trainees are from all the three main groups of islands (Luzon, Visayas, and Mindanao). Due to the unstable political situation in Mindanao, interviews were conducted only in Luzon and Visayas. The interviewees live in a mix of urban and more rural areas. The age group is from the early twenties to late forties and of both genders. It is also a mix of people who have had their disability since birth, and others who experienced disability later in life, typically through accident or illness. This spread of interviewees makes it possible for us to understand how different social settings have an impact on the individual's capabilities.

There are four different ways that Virtualahan helps the trainees to get jobs. The first level is through direct employment. The trainees are employed by Virtualahan and either work with internal activities for the organization and some of the direct customers. Secondly is employment through some of the partners that Virtualahan has. This includes companies like ATRIEV, HSBC, Globe Telecom, Genasthim and GO2 Impact. These partners do not pay Virtualahan directly for helping them to recruit people, but the trainees being hired by them will then be part of the pay later program. The third way is that the trainees manage to find jobs on their own. Such jobs are typically found through online platforms like Facebook, OnlineJobs.ph or UpWork, or through private connections. The fourth way is to help the trainees create their own businesses.

4 Methodology

The paper is based on an interpretive case study methodology to explore the issue in its natural setting [27]. Qualitative research methods for data collection and analysis were used. Primary data was collected through semi-structured inter-views with individuals during a field-trip to the Philippines from March to May 2018 whom all had undergone training by Virtualahan. A total of 22 individuals were interviewed. Each interview lasted from, 30 to 80 minutes.

Table 1. Gender distribution

Gender	Number of informants	Average age
Male	12	36
Female	11	33,7

The interviews were either conducted at the homes of the informants or, if the interviewee did not want the researcher to visit the home, in a nearby coffee shop or other suitable location. Before and after the interviews, questions regarding the content of interviews or to follow up for more detail were conducted using Facebook chat function. Data from these chat sessions was downloaded and used in the analysis.

Also, interviews with policymakers in the Department of Information and Communications Technology (DICT) and National Council on Disability Affairs (NCDA) were undertaken. We also had a number of interviews and informal conversations with the management team of Virtualahan.

There is also extensive information about the company on the Virtualahan website. Virtualahan also has a YouTube page where some of the informants had created videos where they presented themselves. This secondary information was also collected and used in the analysis

The first author spent a day as an observer with six trainees receiving training and also observed a “well-being” session. Experiences from this session was recorded in a research dictionary.

The purpose of such sessions is to get to know each other better and to get to know how the trainees might help each other. Confidence building was also a key area during the session.

5 Findings

Our findings are presented as stories told by the different informants. We present four different vignettes which all are examples on how Virtualahan and new technology have helped different groups of PWD's to enhance their capabilities. In the next session these findings are all discussed according to Gigler's framework. All names are changed to protect the anonymity of the informants.

5.1 Vignette one – going from a "no-one" to becoming a someone

Rodrigo used to work in the service sector, and had for a number of years worked as a bowling supervisor at a hotel in the Arabian Gulf. In 2011 he met with an accident which meant that he lost mobility in his legs, and he now needed a wheelchair. This also meant drastic changes in his life. Because he was not able to move independently, he lost his job. As he was no longer able to pay the monthly housing costs, he and his family had to move to an area of Manila without regular supply of water and electricity.

In order to obtain some income, he told his story on Facebook, and received some donated money from previous colleagues and class-mates. This money was used to invest in a peanut butter making machine. With this machine he managed to earn some money, which was enough to survive.

In 2017 he joined Virtualahan and learned search engine optimization (SEO). Through Onlinejobs.ph, he contacted an American company and eventually was hired. This employment has enabled Rodrigo to pay his monthly bills. He said that:

"Previously I was a no-one. Now I am a someone. I have gone from being a burden to my family to being a contributor".

In addition to work for the American company, Rodrigo is quite active in promoting online work for other Virtualahan trainees. He quite regularly writes Facebook posts on the topic of search engine optimization.

5.2 Vignette two – being employed by a social enterprise

Ferdinand is a graduate in business management. He used to work in the micro lending business.

He incurred a spinal cord injury after a motorcycle accident eight years ago. This means that he has a limited hand function and no mobility in his fingers. This means that he need help to perform normal everyday tasks such as eating, bathing etc. This means that his mother has to help him with any such daily activities. In 2017 he decided to enroll as a Virtualahan scholar, in order to obtain the skills needed to work on-line. He is today hired by Virtualahan both to work on internal projects and to work with some of the Virtualahan customers.

After the accident, he studied graphic design and Wordpress design online with Virtualahan and this is the type of work he performs s today as a freelancer. Clients are obtained primarily by extracting e-mails from Instagram accounts, and uses the e-mail marketing-tool Mailchimp. One key contribution of Virtualahan was not just to help him increase his technical skills, but also to improve his communication skills, which makes it easier for him to identify and communicate with his clients verbally and in writing.

He is now a graphic designer coach for new Virtualahan students and delivers the training. This is part of what he considers as giving back to the society. His target is to continue to work as a web-developer and to get more clients abroad. He wants to have his own graphic design agency.

"I really enjoy graphic design. That is my passion. I want to pursue computer programming. After mastering the skill, I am going to reach out to more clients abroad. In 2-3 years I will have my own graphic design agency."

5.3 Vignette three – how new technology enables blind people to work in the online outsourcing industry

Carmela and Patricia are neighbors in a suburb of Manila and both of them are blind. Both of them work as online transcriptionists. Patricia used to work in the business process outsourcing -industry before. However, because of her blindness, she needed assistance from her aunt to get to the office. Her aunt was also employed and bound by her own work schedules.

Carmela and Patricia are now employed by ATRIEV, which specializes in training and hiring visually impaired PWD. Carmela and Patricia were both trained by ATRIEV in addition to Virtualahan.

This work has made it possible for them to be those who now treat their family members for meals and other social events, like going to restaurants and malls. Without this job, such treatment, which some might find basic, was not possible.

They use a plug-in to Microsoft Word called Express Scribe for the transcription. They also use screen-reader and explains that it:

"converts the text that comes from the computer into audio so whatever you see in the monitor we can hear it".

In Windows 10 there is an in-built app called Narrator. This app makes it easier for blind and visually impaired to use the computer. Another tool in use is Non-visual desktop access also built into Windows. The neighbors demonstrated on an iPhone how this tool help them to hear what is on the screen, enabling them to use platforms such as Facebook, and can identify photographs by hearing the tagged content. Facebook also has an in-built tool for picture recognition. They report the tools are" discriminating", because it is not always that the screen-reader app works. One example they mention is a situation where they use a VPN to connect to a company system.

Carmela said that she sees this job as a good start, but that her dream job ahead is to work as a teacher, in particular as a teacher for blind children.

"I will be teaching in public school, because that is my dream. To teach in a school. Specifically, the school for special children, those who are totally blind. But when I have that job I will keep the transcription maybe as a part-time"

5.4 Vignette four – contribute to the society

Before she was diagnosed with cancer, Pia, had a leading position in the offshore unit of a leading American law company. She commuted to the leading business district in Manila. After she got diagnosed, she had to undergo treatment for a several years. Initially, she was able to continue in her job, but she felt more and more marginalized, and does not get the promotions she felt deserved, and also that tasks were taken away from her. After a while, she became frustrated with the discrimination and left the organization. She was also diagnosed with a mental disorder.

Pia is very passionate about helping people who are in the same situation as herself, people with a disability that is not visible, and in particular cancer survivors. She made it very clear that whenever her company need more people, she would like to hire cancer survivors. When asked about why she had such a strong desire to help the society, she point to the Filipino phrase "Bayanihan". Traditionally this describes the situation where, when a family are to move a house, all members of the society will volunteer to join and help. Houses in ancient time was mostly made of bamboo, so it was possible for a group of people to physically move the house to a new location. Today bayanihan has reached internet, and in particular Facebook. Pia, like many other of the Virtualahan trainees uses Facebook regularly to encourage and support people with different types of disability.

6 Analysis and Discussion

In this paper we have seen four examples on how people with different types of disability uses technology to participate in the society in ways they were not previously able to do [7]. In this section, we discuss our findings according to the relevant dimensions in Gigler's evaluation framework.

6.1 Informational

All of the informants uses new technology to increase their informational capabilities. It is maybe most evident in the case of the blind people. By usage of screen-readers, they are able to understand what is shown on the screen, even if they cannot physically read it. Being able to understand the information they can both do regular tasks like communicating with other people through online platforms like Facebook. But more importantly, they can also work and earn money (discussed below).

Ferdinand and Rodrigo both uses the online platforms to get information about potential jobs, and to actually work. They also use technology like Google and YouTube to enhance their knowledge and to get more information, which again increases their knowledge and make them able to do more challenging jobs.

Pia uses her already existing information capabilities to share knowledge by others. She uses Facebook actively to share the information with other people in her situation.

6.2 Organizational

As mentioned above, in particular Pia utilizes her organizational skills to strengthen her community. Thanks to new technology, she can help people who are in the same situation as herself (cancer survivors), even if they are not located next door. New technology enables her to help the community of cancer survivors all across the archipelago.

6.3 Social development

We have seen examples on how the new technology have enabled the informants to gain education. All the trainees interviewed are active on social media, where they regularly post about their recent success. By sharing this information, they also encourage others to take up the same type of jobs as they do. This way, they strengthen how the community of PWD's see themselves. Instead of identifying themselves purely as a community of people with disabilities, they no identify themselves as a community of people who are now working.

Another indirect social development identified, is the belonging to the community, as clearly stated by Rodrigo when he said that he "went from a no-one to a someone". A statement like this indicates that he is in a situation where he feels better with himself now than what he might did previously.

6.4 Economic development

The opportunity to work from home have given all the informants, with the exception of Pia, an opportunity to do jobs that they previously could not do. Restricted movement, either due to blindness or to be in a wheelchair restricted the opportunities to have regular work and then regular income from the other informants. By usage of new technology, they are now able to earn money that they previously could not earn.

The link between individual economic development and economic development for the community is clear. When the trainees get paid jobs, they are able to provide money to their family. Some of them used their earning to send siblings or more distant family members to school. This is an example on how their new status as workers created economic development not just for the individual, but also for the local community where they live.

6.5 Enabling factor, the influence of Virtualahan

Virtualahan is, as stated by all of the informants, a key enabler in helping the individuals. Virtualahan is also an organization that highly utilizes technology, and it is an important aspect of how they work that the training shall be accessible for everyone, regardless of where they are and whether they have any mobility issues or not.

7 Conclusion

This paper demonstrates that an impact sourcing initiative can help to increase capability building of individual people with disabilities, and through this help wider societies of people with disabilities.

Our findings show that technology help to improve the self-confidence of the PWD's, and through usage of platforms like Facebook, they are able to strengthen the identity of the community of PWD's. Instead of just seeing themselves as a community that is a burden for the society, they are now able to be part of a different community; the community of workers who earn money and contribute to their family.

We contribute to the ICT4D literature by showing how technology can help a particular group of marginalized people, PWD's, and by doing so, responding to the call by [28].

The paper also contributes to practitioners, by providing an example of how one particular impact sourcing vendor can have a huge impact in the society. Findings from this paper can be utilized by policymakers and other impact sourcing vendors in other countries.

We also contribute to the methodology by showing how the AEF framework can be used not only for a physical community, like villages in rural Bolivia, but that it can also be used to analyze a community of people who primarily meet each other online.

Limitations of this paper includes that there is data only from one country. This research should be replicated also in other countries, and more longitudinal research from the same country (Philippines) is very welcome.

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