Volume 1, Issue 3 August 2017

ICT4D Community Newsletter

Editorial

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PROTIC: Reflections on a Complex PAR Project

"One of the best ways to make sure that the research will be useful, and that the research will fit the culture of the group or community, is for the people affected by the research to guide it."

Projects like PROTIC consider communities in Bangladesh but as actors engaged in community problem- solving rather than passive recipients of technological opportunities,. Thus a key issue for the project is how Participatory Action Research (Gonogobeshona), as a bottom-up strategy can be used to engage with villagers in innovation with technology villagers' unfamiliarity with the technology. It is expected that reliance on local knowledge will increase over time as the women become more familiar with the phones, their potential, and the ways in which they might be able to adapt it to their particular circumstances. From an academic point of view, the importance of collaboration with and participation of the people at the bottom with forms of interpretive research has been highlighted as a critical success factor (Heeks 2009; G Walsham 1995).

In an international project like PROTIC, with researchers and participants from Australia, Italy and Bangladesh (including Oxfam and NGO staff, and villagers), we also have to take into account many intercultural subtleties in between us. Questions that are opened up in the process include the mediated nature of perception, the dialogical process of meaning making, the creation and use of artefacts as a way to transmit, preserve or transform local knowledge and practices, and the importance of fully acknowledging local expert knowledge. Culturally-sensitive approaches also foster a re-definition of methodologies and a self-

Key Questions	Possible Forms of PAR		
	Positivist Research Manipulation	**Mainstream PAR Partnership, Delegated Power**	**Radical PAR Citizen Control**
Who Plans and Implements?	Non-representative 'expert', external organisations. Planned and carried out by people far removed from local reality – usually from first world.	NGOs as brokers. More collaboration, but key authority still rests between researchers and broker organisations.	Grassroots organisations. Planned and carried out by community members.
Degrees of Collaboration. What is the relationship between the researcher and the researched?	Highly bureaucratic and hierarchical relationship between the researcher and the researched.	More collaboration, but key authority still rests between researchers and broker organisations.	Researchers and researched negotiate and collaborate on a collaborative community-led partnership to generate activity, research mutually beneficial outcomes.
Knowledge Creation and Control. Who is in charge?	Top-down, expert approach are privileged, dominated by positivist approaches. Standardization and homogeneity are preferred.	More collaboration, but key authority still rests between researchers and broker organisations.	The community creates the knowledge or at least leads and directs those with expertise who accept this direction. Varieties of knowledge and methodologies are recognised as valid. No one size fits all.
What are the power and inequalities and capacity for change?	Ignores or reinforces structural inequities in community. Not considered as part of the research agenda unless purposely focussed on it.	Programmatic change. More consciousness, but key authority still rests between researchers and broker organisations. Issues include gender/s, north-south, dis/ability, age, poverty, disability, post-colonialism, race indigeneity, relations of production, including information production and control.	Challenges power inequalities, privileges those with the least voice/power. Aims for structural change.

Forms of PAR and International Development. Adapted from work by Angeles and Tinkler(Tinkler 2010, 7; Angeles 2011, 508; Arnstein 1969, 216)

reflective attitude aimed at reflecting about the assumptions that all the parties involved in a project bring with them, and more important, on the processes of intermingling cultures activated by any encounter.

As Randy Stoecker notes in his influential handbook on community-based research: *"One of the best ways to make sure that the research will be useful, and that the research will fit the culture of the group or community, is for the people affected by the research to guide it."*(Stoecker 2012, p.29).

In this project, the intention has been to conduct middle-of-the-way "mainstream" or partnership PAR research as suggested in the middle column of Table 1, to be as collaborative as possible, and to enhance capabilities at the grass-roots, particular when community skills and connections are lacking. This is what Stoecker has referred to as "working from the middle" (Stoecker 2012). An *emic* (that is mutually empathetic) understanding of cultural issues is implied importance placed on dialogue, brokerage and negotiation between parties with attention to power and inequality issues. In order to achieve the optimal level of participation and outcomes for the communities involved, the challenges of working with NGOs in new ways need to be recognized and strategies devised to minimise their potential negative impact. This requires a high degree of ongoing self-reflection and continual dialogue between Oxfam, Monash and its partners. The women themselves have taken part in activities that gives them a voice that influences the conduct and content of the project and they have undergone PAR training. Oxfam, NGO, and other parties have also taken part in such sessions.

Oxfam and Monash University, as the key managers and brokers (see Figure 1), now have heightened insight into the complexities of inter-organizational and trans-continental collaboration and are better able to articulate this. Co-creative responses to the technology are being seen in the rich data that generates how the Smart phones are being used by the community. The villagers have domesticated the technology, and in this regard, they are beginning to implement a form of control over it.

Angeles, Leonora C. 2011. "Particpatory Development." Encyclopedia of International Development. Routledge.

Arnstein, S R. 1969. "A Ladder of Citizen Participation." Journal of the American Institute of Planners 35 (4): 216–24.

Heeks, R. 2009. "The ICT4D 2.0 Manifesto: Where Next for ICTs and International Development?" Working Paper Series. Vol. 42. Manchester: Development Informatics Group, University of Manchester.

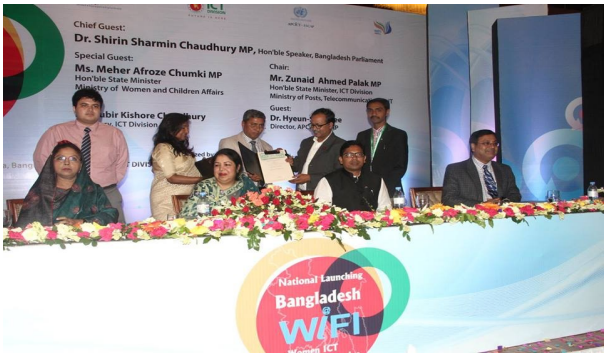
Stoecker, Randy. 2012. Research Methods for Community Change: A Project-Based Approach. 2nd ed. Thousand Oaks: Sage Publications.

Tinkler, Barri. 2010. "Reaching for a Radical Community-Based Research Model: Two Community-Based Research Experiences Lead to a Conceptual Model That Puts Control in the Hands of the Community." Journal of Community Engagement and Scholarship 3 (2)

Walsham, G. 1995. "Interpretive Case Studies in IS Research: Nature and Method." European Journal of Information Systems 4 (2): 74.

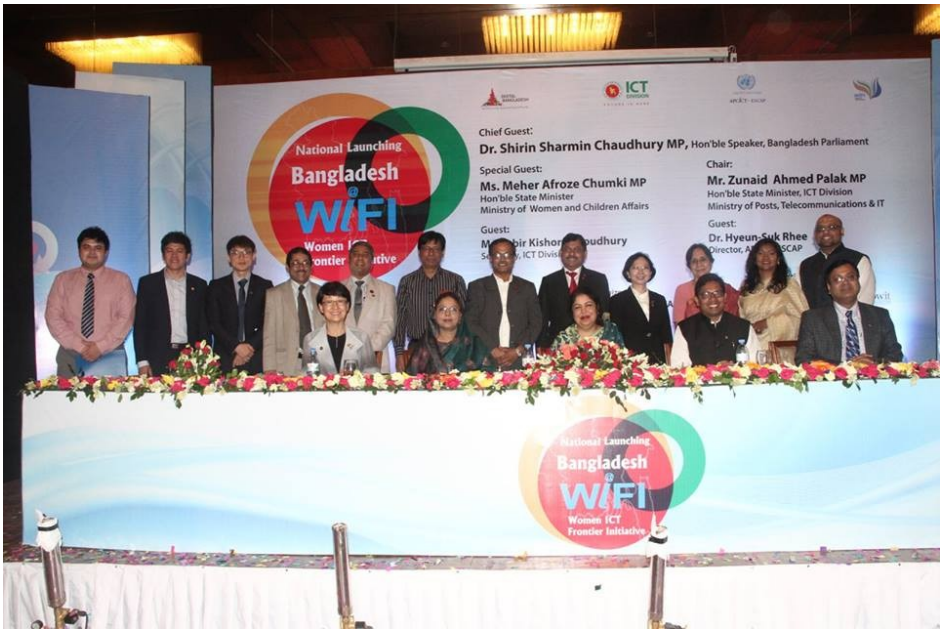
National Launch and Training of Trainers on Women ICT Frontier Initiative (WIFI) in Bangladesh

Women's entrepreneurship is a force for positive social transformation. The success of women entrepreneurs generates ripple effects such as increased household savings, investment in children's health and education, job creation and significant increases in national GDP. While the Asia-Pacific region has closed some of the gender gaps in health and education, women still tend to be more excluded than men from economic opportunities, whether by restricted entry



into the labor force, lower wages, the burden of unpaid domestic labor, vulnerability in dangerous occupations, or lower access to finance and credit. Women entrepreneurs also continue to face disadvantages resulting from their lack of access and capacity to use information and communication technologies. Information and communications technology (ICT) is an enabler for socio-economic development, participation and empowerment. The *2030 Agenda for Sustainable Development* recognizes ICT as valuable tools for facilitating the efforts towards achieving the *Sustainable Development Goals* (SDGs) and their targets. SDG 5 (Achieve gender equality and empower all women and girls) has targets that address drivers of gender inequality and violence against women, and ensures their full and effective participation in society. It also has a specific target to "enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women" (SDG 5, target 5.b).

It is in this context that the Asian and Pacific Training Centre for ICT for Development (APCICT), a regional institute of the Economic and Social Commission for Asia and the Pacific (ESCAP), embarked on the program called "Women ICT Frontier Initiative" (WIFI). The WIFI program aims to promote women's entrepreneurship in Asia and the Pacific through ICT capacity development. It will support women to become economically productive, through entrepreneurship that is enabled by ICT. In an effort to strengthen the capacities of entrepreneur sand policymakers in Bangladesh, ICT Division of Ministry of Posts, Telecommunications and Information Technology , Bangladesh Computer Council (BCC), Bangladesh Institute of ICT in Development (BIID), Bangladesh Women in Technology Bangladesh (BWIT), and the United Nations Asian and Pacific Training Centre for ICT for Development co-organized the National Launch and Training of Trainers on Women ICT Frontier Initiative (WIFI) in Bangladesh on 3-5 July 2017 in Dhaka. The three day program consisted of Training of Trainers (ToT) Workshop on ICT for Women Entrepreneurs and Enabling Policy Environment for Women Entrepreneurship, WIFI Stakeholders Meeting and National Launch on 5 July. Mr. Zunaid Ahmed Palak, MP, Honorable State Minister, ICT Division chaired the launching session and Ms Shireen Sharmin Chowdhury, MP, Honorable Speaker, Bangladesh Parliament attended as Chief Guest. In addition, Ms Marcia Bernicat, U.S. Ambassador to Bangladesh, Ms Julia Niblett, Australian High Commissioner to Bangladesh, Dr. Hyeun-Suk Rhee, Director, APCICT/ESCAP, Ms. Meher Afroz Chumki, MP, Honorable State Minister, Ministry of Women and Child Affairs and other distinguished guests attended the program.



How ICTs can help the world overcome the barriers that stand between millions of children and an education

It has been said that teachers affect eternity, because they can never tell where their influence stops. The impact of education both in the lives of children -- especially the most disadvantaged children -- and in the strength of their societies is commensurately limitless. Children, who learn more, earn more as adults – providing more for their own families and helping boost economic growth while breaking intergenerational cycles of poverty.

That is why education is at the heart of sustainable development: it lays an indispensable foundation for today's children to carry on -- sustain -- development progress in the next generation. Recognizing this fundamental link, Agenda 2030 sets ambitious education targets, calling for global action to provide every child with free, equitable, quality primary and secondary education.

The challenges of meeting this goal are enormous and we will need every tool we have – and some we don't yet have – to overcome them.

In 2013, the year for which we have the most complete data, an estimated 91% of the world's primary school-aged children were enrolled in school – and as many girls as boys were enrolled in primary education in two-thirds of countries in developing regions where gender parity once lagged. That is a victory for millions of children, but millions of children are still being missed.

In West and Central Africa, for example, the enrolment rate in 2013 stood at only 74%. The education of millions of children living through conflicts and crises is at urgent risk -- with around 24 million children living in 22 countries affected by conflict out of school. And the quality of education children receive when they are able to go to school is often very poor: Globally, more than one in three children of primary school age – around 250 million children – leave school without ever learning how to read, write and do simple arithmetic, according to a 2014 estimate.

ICTs can help us reach these left-behind children – supporting our efforts to increase their access to

learning opportunities; to improve the quality of the education they receive; to help identify the obstacles children face in accessing education and the challenges schools face in retaining students; and to monitor our progress toward realizing the SDGs pledge to "leave no one behind".

Although ICTs are not a solution in themselves, examples abound of ways in which they are helping expand children's horizons by increasing their access to higher quality education and promoting their learning. For example, in Sudan, the Can't Wait to Learn initiative uses solar-powered tablets and interactive, self-paced software to help out-of-school children access the official Sudanese primary-level mathematics curriculum. The children use the tablets in community spaces that are staffed by trained facilitators – a necessity to maximize the value of digital devices.

Argentina is building a network of tech-based, rural high schools to help more children attend secondary school – a real falling off point in school enrolment. Well-qualified teachers stream lessons in real time from urban headquarter offices to community centers. Each urban headquarter can provide ICT supported education to 10 classrooms, making precious educational resources go farther and expanding access to higher quality teaching. Not only does this program connect more students to quality learning opportunities, it also connects them to each other. Once classroom exercises are over, students from hundreds of schools can interact with one another in open chat windows. This program is currently covering 40,000 students in 3,000 community centers.

These are comparatively low-cost, high impact interventions that can change the lives and futures of millions of children. Distance learning systems can also help improve teacher training and support other community programs, such as teaching parents and caregivers about the importance of stimulating play in early childhood development, which can not only help children learn later in school, but to learn more as adults.

And the role ICTs can play in helping every child realize a quality education goes beyond distance learning or laptops in schools. ICTs can also help us identify barriers that stand between too many children and a quality education, and track progress to overcome those challenges. We are beginning to realize the potential uses of ICT-enabled 'perception data'- information provided by the intended beneficiaries of development interventions about how programs and initiatives are working, or not working.

For example, U-Report, a mobile polling tool developed by UNICEF now used by 3 million young people in 34 countries, enables young people to voice their opinions and provide crucial perception data about problems in their communities. In Liberia, U-Reporters working with the Ministry of Education helped shed light on why enrollment and completion rates were dropping drastically, providing direct evidence of the reasons that prevent them and their peers from enrolling and completing school. Is it because walking to school is unsafe? Is it because teachers are absent or abusive towards students? Are there adequate hygiene facilities for girls?

Answers to questions like these can help illuminate where and why progress is lagging – and, in turn, can help governments to develop more turn, can help governments to develop more efficient, effective and targeted interventions to address the situation.

ICTs can also serve as effective tools to monitor performance and boost accountability for results. In Peru, the EduTrac initiative uses mobile

technology to gather data in remote communities, including data about teacher and student attendance, timely delivery of school materials, and school maintenance. Students, teachers and communities are all involved in the collection, interpretation and use of such data – an inclusive way to improve school quality in communities far from urban centers.

Similarly, ICTs can help deliver education and learning opportunities to children living through emergencies – monitoring the impact of conflicts on children's ability to access classrooms, mapping the location and condition of schools, tracking the distribution of learning materials, and providing distance learning opportunities. With an estimated 24 million children forced out of school as a result of violent conflict, and 50 million children on the move in search of safety and a way out of crushing poverty and climate-related crises, the potential impact of such programs is enormous.

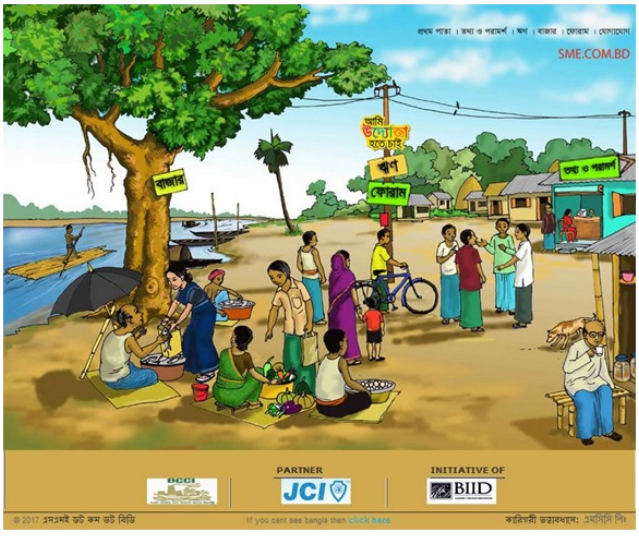
ICTs also can help us achieve the SDG education targets by helping educate people about the SDGs. Already reaching children in 160 countries, the World's Largest Lesson (WLL) is a new curriculum and online learning platform designed to teach the world's children about sustainable development.

More broadly, the SDGs recognize the critical role ICTs can play in boosting so many of our development efforts. SDG Target 9.C calls for governments and their partners to significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.

Source: http://www.itu.int/en/sustainable-world/Documents/Fast-forward_progress_report_414709%20FINAL.pdf

sme.com.bd: A Dynamic Platform for Small and Medium Businesses

SME portal is an online platform that brings together diverse stakeholders in the sector of Bangladesh through providing services, sharing strategies & innovation. It can contribute in poverty reduction by enhancing competitiveness and supporting the development of SMEs is the major goal.



Small and medium enterprises (SMEs) or businesses (SMBs) are treated as the engines of growth and drivers of innovation worldwide. They play a significant role in driving economic growth and generating jobs. In Bangladesh, the sector is actually changing the face of the economy. SMEs are playing a vital role for the country's accelerated industrialization and economic growth, employment generation and reducing poverty. The total number of SMEs in Bangladesh is estimated to be 79,754 establishments. Of them, 93.6 percent are small and 6.4 percent are medium. The 2003 Private Sector Survey estimated that there are about 6 million micro, small and medium enterprises, with fewer than 100 employees. About 60 to 65 percent of all SMEs are located outside the metropolitan areas of Dhaka and Chittagong. The country's SME sector has created 15 lakh jobs between 2009 and June 2014. Every year about 2 million young people join the country's workforce. Half of them find jobs at home or abroad. So, it has become a challenge to create more jobs so that the rest can be employed. SMEs can be an answer to the problem.

Development of micro and small businesses can contribute to poverty alleviation through creating employment opportunities and can promote growth through forward linkages and developing factor and product markets. SMBs are important vehicles for diversifying economic activity and have the ability to make a significant contribution to the economic well-being of the people. These enterprises also contribute to enhancing competition and entrepreneurship and have benefits on economy-wide efficiency, innovation, and aggregate productivity growth. The strategic importance of micro enterprises has also been recognised by the World Bank and other international development institutions. Entrepreneurship can also transform women's livelihoods through engaging them in non-farming activities. Involvement of women in small businesses can increase consumption and improve the nutritional level especially of women and children, enhance aspirations for children's education and contribute to reduction in household poverty.

In Bangladesh, SMBs generally do not have the access to knowledge on business development. SMBs face problems in different stages to develop their desired business and lead to its growth stage. The most common challenges for SMBs include low awareness on business policies, legal requirements and business environment, lack of business planning skills, low capacity on business and resource management, difficulties in accessing and availing financial services, difficulties in accessing market, lack of knowledge on product development and diversification strategy, quality and understanding of branding and marketing strategies. To provide a solution to these kinds of barriers that interrupt SMBs to grow and achieve competitiveness, Bangladesh Institute of ICT in Development (BIID) has developed the SME portal that can provide access to the required information, services and market.

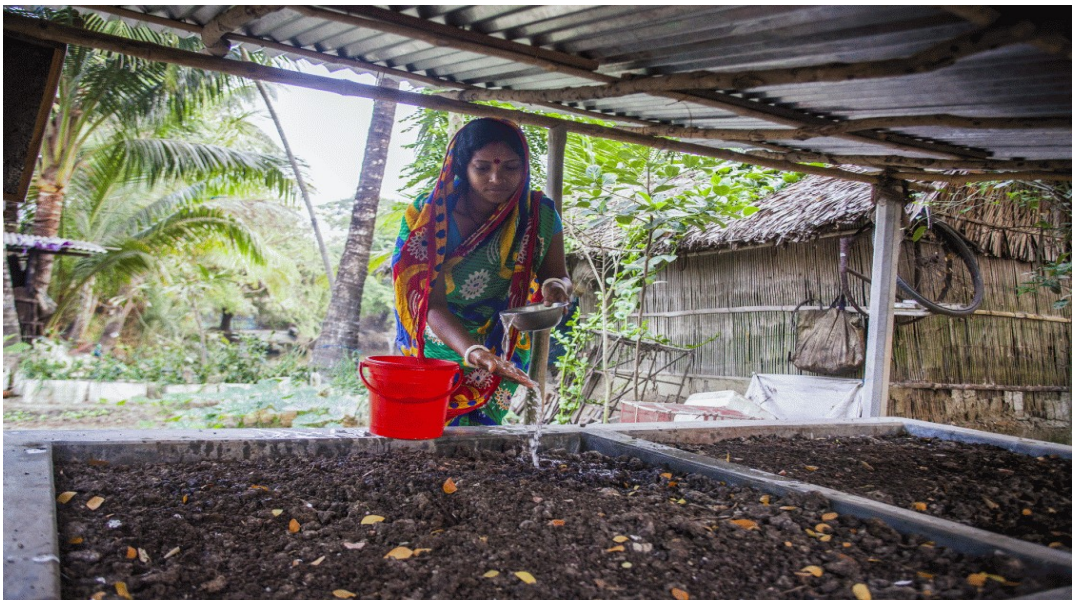
The sme.com.bd is a dynamic platform that provides wide range of services that can facilitate in the growth of small businesses. The web portal provides information and consultancy service on starting new business, provides support in developing new business ideas and facilitates in business planning. Another major component of this platform is providing business development services such as facilitating access to finance, developing loan proposals and helping SMBs in fulfilling various regulatory criteria. Sme.com.bd also provides a market place for various businesses where users can promote their products and services and connect with potential clients. The portal hosts a live forum to provide on-demand solutions by business experts and deliver customized solutions if required.

In addition to these services, different types of tools will be gradually available which will facilitate capacity building of SMEs. This includes training modules for skill development, group discussions, downloadable legal documents and training modules at SME portal, market place at SME portal, networking social media, SMS alert, internship, mobile applications, video clips, SME fair, virtual training through SME portal, webinar and newsletter. The vision of the sme.com.bd portal is to create a one-stop solution for SMEs through use of modern technologies. SMEs can avail these services from any location at any time at minimum or free of costs. It can help increase their efficiency in terms of saving time, reducing travel, reducing cost of accessing services, providing information and improving skills. The mission of the sme.com.bd platform is to provide "access to all" so that small businesses can grow, develop new ideas and contribute in improving livelihood of rural communities. This platform can be a useful resource especially for women entrepreneurs who are generally constrained by less mobility, information and access. BIID also envisions collaborating with different partners and projects to ensure its scale and sustainability and has targeted to reach over 50000 SMBs in by 2019.

টিপস:

- নতুন ক্রেতা সবচেয়ে বেশী আকৃষ্ট হবে তখনই যখন আপনার পন্য বা সেবা সম্পর্কে জনগন আলোচনা করবে বা কথা বলবে। আপনার পন্য বা সেবার গুনগত মান ভাল হলে মানুষ পরস্পর এটা নিয়ে কথা বললে (Word of Mouth) নতুন ক্রেতারা আকৃষ্ট হবে।
- শুধুমাত্র একটি বিপনন কৌশল বা প্রচার মাধ্যম যে সবসময় সবধরনের ব্যবসার ক্ষেত্রে ঠিকভাবে কাজ করবে তা ঠিক নয়। পালাক্রমে প্রচারের সকল মাধ্যম ব্যবহার করে দেখুন কোনটি কখন ভালো ফলাফল দেয়।
- ভেবে চিন্তে পরিকল্পনা গ্রহন করুন। ক্রেতাদের কাছ থেকে নিরবচ্ছিন্নভাবে মতামত গ্রহন করুন এবং তার ভিত্তিতে আপনার কার্যপ্রণালী স্থির করুন।

Using the Multilevel Perspective to analyse effects of the PROTIC project



The PROTIC project, which is distributing smart phones to rural farming women in conjunction with a special call centre in two villages in Bangladesh, can be analysed through many different lenses. Here, we have looked at PROTIC from the point of view of its position in influencing ICT4D policy and practices at the local, NGO, national, and international levels. What is significant is that this viewpoint is driven by bottom-up effects.

Previous studies have shown that landlines improve market interaction, effect transport efficiencies, and reduce isolation or improve personal community security With respect to the impact of the mobile phone, similar impacts have effected a much larger audience, affected gender relations and increased active citizenship (Donner 2015).

We have drawn upon what is known as the Multilevel Perspective (MLP) and Social Practice Theory (SPT), and in particular, used the notions of *landscapes, regimes*, *niche,* and *practices*, to interpret the changes that ICT4D projects like PROTIC bring about (Geels and Kemp 2007; Shove and Pantzar 2005).

At the highest *landscape* level, PROTIC exists in the context of the boom in mobile communications and its effect on the economy and society worldwide. The effects of these landscape changes has been to exert pressure on different players at the regime level, whether on governments in developing nations like Bangladesh , or significant NGOs engaged in International development. International conferences, agreements and statements have come out of the participation of such bodies and have acted as motivators for action.

At what is called the *regime* level, the Bangladesh government has responded with its own policies, legislation and papers concerning the development of an information society, including noting the importance of ICTs in poverty alleviation and public access to ICTs and information. At the level of community development players, NGOs like Oxfam have been developing interventions, including the PROTIC.

At the *niche level*, there is interaction between local NGOs funded by Oxfam, government players (for example agricultural extension officers) and the villagers and details are provided here. The findings here are relevant to the development of further stages of the project, including training, as well as having policy and planning implications for Oxfam and Monash. In terms, these kinds of findings, as they continue through the

life of the project can be used to have an influence at the national level in Bangladesh (policy and advocacy), but as well, contribute to Bangladesh having a more informed voice at the international level, in global forums and so on.

Findings

Based on our analysis of baseline survey data conducted in the two target villages in the north and south of the country and control villages as well as 40 in-depth interviews during the pilot phase of the project, we have seen effects of Smartphone use. We see the stability of practices as well as the emergence of new ones in the project villages compared to the control ones. Questionnaires and interviews suggest that the smart phones bring to the project villages an extension of the range of purposes of phone calls. These include business calls but also calls to the vets, the doctors, local NGO and the project call centre. Even though the total amount of these call may be limited, they are perceived as very important by the participants, who often evoke this enhanced capability with exemplary stories.

Family practices

Interviews suggest that communication practices with family members are much more complex than expected, in part because of traditional relations between husbands and wives, but also because of the fact that when married, women become part of the husband's family, and are traditionally, more restricted in contact with their side of the family. Mobile phones can change this.

The phone also reflects an increase in the sense of self-confidence, empowerment and agency to engage in practice: *'I think if you can spend some time by yourself then you will learn more. Just think a woman like me was never comfortable using button phone but now using smart phone efficiently. My mother also surprised how I am managing this! This is to my credit'.*

Livelihood practices

The accounts provided by interviews support the notion that there has been a positive response to the call centre and other informational opportunities, including Facebook feedback, even in the relatively short time between the beginnings of the PROTIC pilot and the implementation of project surveys and interviews. *My experience is really good. Earlier we were really helpless and could not save our domestic animals from different diseases. If they got sick we need to go to the doctor physically to inform them, it took long time and most of the time we had lost them before the doctor came. But now we can call the doctor for the quick support. This kind of communication is saving time, travel cost and effort. Last month suddenly in one evening my goats got sick then I called the doctor. He came to my home within 30 minutes and save my goats by giving injections.*

Business practices

Business practices are intrinsically linked to livelihood practices as found in account. A woman with a strong talent in horticulture independently researched how to set up a worm farm on Google (in Bangla), and established a worm farm set under a roof to protect it from the elements her courtyard. She now sells the rich soil and worms to other villagers. She has also learned how to grow various vegetables through the sides of oven baskets filled with soil, and holes in old plastic bottles filled with soil. She gives them fresh water in an area where the ordinary water is too saline. She is making extra money.

Citizenship practices

I can call the administration persons like chairman or the other important persons. ...sometimes I face problems. The NGO gave us the numbers of important administration persons. In the past I had to go to them physically. But that is time consuming. Even I can show now something with my camera to them.

Qualitative data provide further evidence about the fact that participants feel more entitled and some are asked by the others in the community to bring their voice directly to the authorities. This is particularly so on behalf of people who are already community activists, but the Smartphone can give them a stronger and more independent voice.

Conclusions

Communication is still overwhelmingly verbal, whereas advanced uses of smart phones which include internet and problem solving capacities are still at level of 'proto-practices' for the majority of people. However, some people can be very quick to innovate and their new niche practices and innovations can be used to inform further stages of the project and upwards to the national and international levels.

Donner, Jonathan. 2015. *After Access. Inclusion, Software and a More Mobile Internet*. Cambridge, Mass.: MIT Press.

Geels, Frank W., and René Kemp. 2007. "Dynamics in Socio-Technical Systems: Typology of Change Processes and Contrasting Case Studies." *Technology in Society* 29 (4): 441–55. doi:10.1016/j.techsoc.2007.08.009.

Shove, Elizabeth, and M. Pantzar. 2005. "Consumers, Producers and Practices. Understanding the Invention and Reinvention of Nordic Walking." *Journal of Consumer Culture* 5 (1): 43–64. doi:10.1177/1469540505049846.

4 Best Practices for Responsible Data in Agriculture

The agriculture sector is creating increasing amounts of data, from many different sources. From tractors equipped with GPS tracking, to open data released by government ministries, data is becoming ever more valuable, as agricultural business development and global food policy decisions are being made based upon data.

But the sector is also home to severe resource inequality. The largest agricultural companies make billions of dollars per year, in comparison with subsistence farmers growing just enough to feed themselves, or smallholder farmers who grow enough to sell on a year-by-year basis.

When it comes to data and technology, these differences in resources translate to stark power imbalances in data access and use. The most well resourced actors are able to delve into new technologies and make the most of those insights, whereas others are unable to take any such risks or divert any of their limited resources.

Access to and use of data has radically changed the business models and behavior of some of those well resourced actors, but in contrast, those with fewer resources are receiving the same, limited access to information that they always have.

In Responsible Data in Agriculture, Lindsay Ferris and Zara Rahman for The Engine Room have approached these issues from a responsible data perspective, drawing upon the experience of the Responsible Data community who over the past three years have created tools, questions and resources to deal with the ethical, legal, privacy and security challenges that come from new uses of data in various sectors.

Through their interviews and desk research, there were four best practices suggested as ways to mitigate the responsible data challenges mentioned above. Many of these are not unique to the agriculture sector, but rather speak to broad responsible data best practices writ large.

Education and awareness

One of the biggest differences between people we spoke to was how they perceived the effects of publishing data. Broadly speaking, those coming from the open data perspective were keen to publish everything apart from personally identifiable information.

Others, especially those working with small- holder farmers, or indigenous populations, were much more aware that publishing data would benefit only the better-resourced actors in the agriculture sector, and expressed serious concerns about the potential unintended consequences of publishing data about, for example, indigenous populations.

They were keen to emphasis that much more needs to happen in addition to making data available as online open data for farmers to make use of it – including educating farmers on their rights to data and information, and strengthening their capacity to make use of information to inform their practices.

Establishing and regularly reviewing policies

Proactive recognition of the inequalities at play when it comes to data use in the agriculture sector is a prerequisite to ensuring that new data uses are sure to mitigate, rather than strengthen, these inequalities.

Some organizations are doing this via focused policies, such as CGIAR's Open Access and Data Management Policy. In the international development sector, Oxfam has developed a Responsible Data policy, which looks at their internal management and use of data to ensure they are working in a responsible and ethical way. There is a lot of potential for reuse of items within these policies to reduce the burden of developing a new policy from scratch.

Given the quickly moving field and fast-changing technologies available, it is essential to regularly review these policies to ensure they are still valid. For example, as the cost of satellite imagery drops, access will undoubtedly increase and so the considerations around actors using satellite imagery will need to be re-evaluated.

Strengthening and enabling rights of vulnerable people

Within the sector, vulnerable communities are most at risk of being put at a further disadvantage as a result of the increased use and influx of data. One way of countering this is by focusing on strengthening rights of those groups, such as farmers' rights.

The Privacy and Security Principles for Farm data, a declaration signed by 37 ATPs as of March 2016, marks the beginning of integrating actionable practices into data collection and use by companies. However, unless farmers have the awareness and resources to defend their rights, there can be no accountability for principles like these. International organizations need to recognize this, and train their members on how to advocate for their rights as well as better understand the use of their information.

Prioritizing contextual considerations

In many of the responsible data challenges and tensions outlined above, the importance of context in making appropriate and responsible decisions cannot be underestimated. Even when a certain dataset is deemed publishable in one context, the same information in another context might have very different consequences.

In many cases, choices around how best to disseminate information are being made based upon existing information systems and cultural understandings of various technologies. In some cases, radio remains the best way to communicate with farmers working in rural situations. In others, with high levels of mobile penetration, SMS or IVR is best.

In order to make these kinds of decisions in a responsible way, sharing the decision-making responsibility with people from the communities themselves seems to be the best way of ensuring no harm or negative unintended consequences. Co-design methods and collaboration early on in the data sharing process is also recommended as a way of getting solid buy-in from relevant communities.

Source: https://www.ictworks.org/2017/07/10/4-best-practices-for-responsible-data-in-agriculture/

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