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Chapter 12

The Complexities of PAR: A community development project in Bangladesh

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This Chapter discusses how a university research group experienced Participatory Action Research (PAR) with a major international non-government organization (NGO) in a Community Informatics and Information and Communications Technology for Development (ICT4D) project. These projects typically focus on the appropriation of information and communication

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technologies (ICTs) and the design of information systems (hardware, software, people's activity) to meet the needs of communities, but in this case, we also tried to incorporate PAR.

Using Participatory Research and Ownership with Technology, Information and Change (PROTIC)--a five-year collaborative project between Monash University in Australia, Oxfam Australia and Oxfam in Bangladesh--as a case study, we focus on what we understand to be the practice of PAR. We say "what was understood to be" because the international project team came to the problem from very different perspectives, cultures, and educational backgrounds, including that of Western university academics, local project staff in an international NGO, local staff in a remote NGO, and the villagers themselves in a hierarchical, traditional environment. These factors affected the type of PAR which was implemented. There were also geographical, institutional, and political issues that affected our activity, and we also account for these.

Despite these limitations, we interpret the use of PAR in this context as a very positive intercultural exchange between partners, resulting in incremental, but still important changes in the lives of the women participants in the project. It changed how Oxfam thinks about technology in international development and how academics view PAR, and raised awareness and skills concerning ICTs on the ground in remote villages in Bangladesh.

Our observations may seem devoid of idealism or commitment to more radical social change principles proposed for PAR and community development. However, we think that we have a more realistic approach to developing change strategies in countries like Bangladesh where external players need to avoid research colonization (Bishop 2005), or enact an unwelcome intervention in a politically sensitive environment.

THEORIES BEHIND THE PROJECT

From a research perspective, it can be suggested that there is a "three-cornered" relationship between knowledge, international community development and technology (Johnstone 2005:10). However, the dynamics between these three points are not well-understood, in part due to the use of ill-fitting conventional knowledge management models that do not consider the particular culture and activities of NGOs. Here we explore the three corners.

Community Development, Community and Development Informatics

Members of the team had worked in community development in Australia, or had undertaken projects and research with a community development dimension in countries such as Cambodia, Indonesia, New Zealand, South Africa, and Vietnam over past decades. However, it was only when writing this chapter that we realized the concept of community development had been largely unproblematized for PROTIC. Although literature such as Ife (2013), Rothman and Tropman (1970), and Wadsworth (2011) was known to some team members, there was no systematic attempt to raise the awareness of other team members to this core literature other

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than forwarding electronic copies of academic articles. The knowledge and expertise of the Project Leader in guiding the ideas were taken as a given.

Some PROTIC team members had also been part of an earlier research group at Monash which had a particular interest in the theory and practice of Community Informatics (Stillman, Denison, and Sarrica 2014; Stillman, Johanson, and French 2009; Stillman and Linger 2009). Members of this group had also had strong connections going back to the mid-1990s or the Community Informatics Research Network which had been meeting almost yearly at the Monash campus in Italy since 2003. For the Monash team, Community Informatics projects consider "lived-in and situated communities not as passive recipients of technological opportunities, but as actors engaged in the comprehension and "doing" of community problem solving directed to social progress" (Stillman and Linger 2009: 256).

This long exposure to the practice of community informatics converged with an interest in Development Informatics, also known as Information and Communication Technology for Development or ICT4D, by the Monash team. International development which supports the technical dimension is regarded as a form of research and practice mediated by a "process of articulating knowledge and power through which particular concepts, theories, and practices for social change are created and reproduced" (Chae 2014: 145). If a scholar takes an activist perspective, a characteristic of development informatics is that it proposes "pro-poor" solutions with technology, rather than passive consumption of informational or technological systems. Additionally, the importance of collaboration with and participation of the people at the bottom has been highlighted as a critical success factor of interpretively-oriented technology research (Heeks 2006; Walsham 2006).

Oxfam members of the project saw academic definitions of community development or international development as less important than practice. Community development is largely pragmatic and practice-oriented in a country which is regarded as an international development hub, and the focus is upon project management and implementation (Lewis 2016). This is not to say that international NGO workers lack academic skills. In this project, the Oxfam team held local qualifications in environmental science and anthropology at Bachelor and Master's level from prestigious Bangladeshi universities. All have worked in the field, some in other countries in international development. In the field, the local NGO workers also have academic training from regional universities or institutions, including Islamic studies, business, or agricultural science. However, due to resource constraints in the country, and natural staff turnover, there can be gaps in institutional and sectoral knowledge of community development tools and techniques.

Gendering and feminisation of production were central to this project and are central to international development in general (Ahmad 2014; Sen 1987). Thus, "one is not born but becomes woman" (De Beauvoir 2014:293). This "becoming" in traditional societies occurs in a situation of complex disadvantage and discrimination though the multiple intersectional limitations set upon their gender *and* the structurally unequal conditions under which they live as compared to men (Crenshaw 1989, 1991; Murzacheva, Sahasranamam, and Levie 2019).

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Critically, Bangladeshi women "are defined by their relationships" (Arens 2014:35). There are multiple and predominantly unequal relationships with the immediate family, relatives, and other parties, and these have a key influence on well-being (Moore 2010:36). Thus, when applied to the case of land in Bangladeshi villages,

[A] woman's decision on what she chooses, both the process and the outcome, is only partly determined by her agency, by how much power she has to negotiate with her brothers and make her own choices. Apart from women's agency, the decision is also determined by the gendered social structure with its patriarchal norm that women depend on men for their livelihood and e.g. that a family prefers to keep its ancestral lands intact (which may limit her freedom of choice). Besides these, the decision is determined by the class structure and other factors, such as a woman's own personality, her family background, and education. The social structure can constrain or enable a woman's agency, her freedom of choice (Arens 2014:32).

And as an international community development project combined with a PAR methodology project, PROTIC aimed to have as much participation as possible from the women themselves in the development of localized content based on their highly localized information, indigenous knowledge, and needs, and this was seen as a means of giving them a voice in designing solutions to meet their needs¹. A range of ideas and experiences had an influence on what the academic researchers thought this meant in practice.

Participatory Action Research

What did we intend by Participatory Action Research? From a Monash perspective, early ideas were very much influenced by Wadsworth (1998, 2011), Stoecker's work on community-based research (Stoecker 2001, 2012; Stoecker and Stillman 2007), Kemmis and McTaggart (2005), and Tinkler (2010). Team members had written about PAR (Denison and Stillman 2012). In PROTIC program documentation, we proposed a 4-stage cycle (Diagnosis, Prescription, Implementation, Evaluation), derived from Stoecker's work on Community-based Research, citing the following statement:

[The] first goal of the overall participatory and action-oriented research process is to support action on a specific issue—the first form of social change... [The] second form of social change ... is to transform the social relations of knowledge production so that people who have only been passive recipients of knowledge become participatory knowledge producers whose knowledge can inform action and build power (Stoecker 2012:91–92).

¹ In this Chapter, we use the terms "information" and "knowledge" interchangeably, though knowledge tends to be interpreted as having more of an applied sense – "information-in-use"

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We were also aware that in Global South contexts, PAR is viewed as a decolonizing form of research, and it rejects uncritical approaches to knowledge and information production and technologies (Angeles 2011). The Monash team, while attempting to localize the project, discovered a Bangladeshi version of PAR with published English-language literature going back some decades (Fals-Borda and Rahman 1991; Fugelsang and Chandler 1988; Rahman 1994). The Bangladeshi ideal for PAR (in Bangla "Gonogobeshona"), closely matched the radical ideas present in some Western writing about community change (Arnstein 1969; Black 2007). However, PAR's popularity has declined over the years in the more controlled and neo-liberal environment in which NGOs now work in Bangladesh (Barua 2009; Lewis 2016). Despite this, PAR remains an inspirational ideology in Bangladesh and India, taken up in other forums such as the Bangladesh Gonogobeshona Ecology Network, and in indigenous knowledge research in Bangladesh and elsewhere (Sillitoe 2006; Sillitoe, Dixon, and Barr 2005).

The aspirational PAR model for the project is represented in Figure 1. What we hoped to do, in addition to working with community-based practices for problem diagnosis, solutions, and implementation of information and communication problems (Phases I-III), was to also engage in Phase IV evaluation with strong participation from communities throughout the life of the project.

[Figure 12.1 about here]

Figure 12.1: Stoecker's 4-stage PAR process as for PROTIC (adapted from Stoecker 2001).

The practice of PAR changed during the course of the project in response to local conditions, once we saw that our expectations for full and robust local NGO and community-based evaluation were aiming too high, because of cultural, institutional, and logistical issues. This issue is discussed more fully in the case study.

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BACKGROUND ON THE PROJECT

The Project Team

The academic research team itself was multicultural, with members from Australia, Bangladesh, Belgium, Indonesia, Italy, and New Zealand. The Oxfam Bangladesh staff in Dhaka were Bangla and English-speaking and also had experience working across Asia. This interaction between different parties contributed to a rich mix of linguistic, textual, and cultural interactions in the process (see Sarrica et al. 2019). There were also five PhD students, four from Bangladesh, attached to the project. Communication among those involved was challenging. None of the Australia or Italy based researchers had more than basic Bangla (Bengali) language competency. Mostly, people used standard English, and what is known as "Banglish"-a locally emerging dialect of English, akin to Indian English, along with some Italian. At times, there were problems of meaning across Englishes in both face-to-face and video or voice communication, compounded by geographical distance and internet connectivity issues.

Consequently, many online meetings between Australia, Oxfam in Bangladesh, and Italy were inconclusive, with conversations being left to multiple emails and Skype or Facebook messages. The best work was done when the Monash team was in Bangladesh. But even then, the cross-cultural and language barriers were apparent; we deferred to Bangladeshi ways of doing and being and avoided research colonization by outsiders (Dutta and Islam 2016; Smith 1999)

In the target communities, the local NGOs had less facility with English. Most field workers, while understanding some English, did not speak English well enough to discuss the project in any detail. Some villagers knew basic greetings in English, but not enough to hold a conversation. Thus, variations in capacity or willingness to communicate in English (whether Oxfam staff, local NGOs and villagers), prevented obtaining detailed and nuanced information. Additionally, project implementation was conducted in Bangla, with local dialects on the ground. Many meetings in Dhaka and in the field had to be interpreted by Oxfam staff for the English speakers, resulting in compression and filtering of information.

Additionally, for cultural and institutional reasons, NGO workers and managers wanted to present stories of successes rather than problems and failures to the foreign Monash team. Finally, the villages were two days or more away from Dhaka, via quite tiring journeys, and this also impacted the quality of interactions.

The Project Context

Bangladesh

About 80% of Bangladesh's population of 160 million live in villages. They engage in agriculture as well as pisciculture – fish and shellfish--for consumption and for local markets. Some products may also then be sold to wholesalers for trading in Dhaka and other markets. Villagers

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environmental fragility including the effects of climate change and increasing salinization due to shrimp and crab cultivation. Many people cannot access fresh water anymore, and rivers are being lost due to climate change and the effects of human settlement and industrialization. Despite these problems, rural Bangladesh is spectacularly beautiful and "is not so much a land upon water as water upon a land" (Novak 2008:22).

For social, economic, and cultural development, NGOs, whether large international or homegrown social enterprise, or locally-based are pervasive and involved in the delivery of a full range of services, subject to increasing government regulation and control. Their exact numbers are not known because many small local people-centred organisations (some based on religion) are not registered. Many villages are associated with several projects. It was estimated by the World Bank in the early 2000s that 20-35% of the Bangladeshi population received some form of service (education, credit, health) from an NGO representing a form of outsourced government. Anecdotally, the figure is probably much higher today, with the role of NGOs even more entrenched (Lewis, 2011, 2016). By way of comparison, in India, it is thought that there is one NGO for every 400 people. Anecdotally, it is the same in Bangladesh. It is hard to think of a village without some sort of NGO relationship.

In this context, innovation with ICTs are important as a way to overcome the country's poor road and communications infrastructure which severely restricts travel, business, and access to core services such as hospitals. Most people appear to have cheap phones (as low as US\$10), though increasing numbers buy cheap internet-enabled devices in village bazaars. At the same time digital divides replicating wealth and class divides affect access to ICTs (Rahman 2013). According to the Bangladesh Telecommunication Regulatory Commission, mobile phone users grew from 133 million in December 2015 to 162.5 million in August, 2019², though people may possess more than one phone or, conversely, may share devices. As of August 2019, the total number of Internet users reached 98.1 million; 92.4 million of these used mobile phones.

The Bangladeshi government has a digital society policy agenda (popularly known as Vision 2021), but how to truly engage and connect with people in low income communities, rather than expanding services for the middle class, business, government and industry, remains problematic (Government of Bangladesh. Prime Minister's Office. 2019).

Natural and humanitarian disasters and security

It was often difficult for our project to demand priority in the midst of frequent natural and humanitarian disasters that Bangladeshis face.

For example, when the Rohingya humanitarian emergency occurred in Bangladesh in 2018-2019, all Oxfam staff were pulled in to assist, including spending weeks in the camps, preventing Monash staff from working with the local NGOs (See Figure 2). The same problem occurred when there were floods in the country in August 2017 and July 2019. While the lead

² <http://www.btrc.gov.bd/license-statistics>

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researcher was able to conduct some field trips in both periods, they were not in the mood to discuss how useful phones were to them even though we know they were filming and sharing footage of floods on Facebook.

From mid-2016 onward, the security situation worsened in Bangladesh. A terrorist attack on a café on 1 July 2016, the day that Larry Stillman and Mauro Sarrica arrived in the country, killed many foreigners. Foreigners and Bangladeshis alike were terrified. Security alerts resulted in ongoing lockdowns in hotels and alerts for foreigners, at times preventing field visits and even access to the project office in Dhaka.

CASE STUDY: THE PROTIC PROJECT

Background

The PROTIC project is a collaboration between Monash University, Australia, and Oxfam, through its affiliates in Australia and particularly Oxfam in Bangladesh. Key events in the project are highlighted in Figure 2 and taken up in the narrative. The acronym PROTIC fittingly means "sign" in Bangla. The first stage of PROTIC (2015-2019), tried to use a combination of community development and participatory action research to support and empower isolated village women with information and knowledge through the use of smartphones.

The kernel of the PROTIC project goes back to earlier desk research in 2012 and serendipitous discussions that took place with the then Manager of Oxfam in Bangladesh Projects in June 2013 during an Oxfam workshop.

After a series of field visits by Larry Stillman and online discussions over 2013-4 the partners obtained funding (approximately US\$3 million) from a private foundation for the PROTIC project for 2015-19. A public launch was held in Bangladesh in June 2015. The project also received human ethics clearance from Monash University for activity in both the villages where smartphones were used and the control villages where phones were not distributed. In many ways, the PAR element was institutionalized within Oxfam's and Monash University's ways of working. Both organizations are risk averse and concerned with their reputation. Projects still needed to go through the formalities of sign-off at the highest levels of the organization. Figure 2 shows a timeline for the project. A new project, focusing on different communities, but using the learnings from PROTIC, has been funded for 2019-2024, though COVID has created a new set of challenges.

Access to information and information rights are important to Oxfam, and this is reflected in the following statement from one of its key thinkers:

Access to information is no abstract debate; it is an essential tool of citizenship. Knowledge expands horizons, allows people to make informed choices, and strengthens their ability to demand their rights. Ensuring access to knowledge and information is integral to enabling poor people to tackle the deep inequalities of power and voice that

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entrench inequality across the world. At a national level, the ability to absorb, adapt, and generate knowledge and turn it into technology increasingly determines an economy's prospects (Green 2012:43).

The significance of using PAR as a research method and transformational tool was highlighted in internal documents and proposals for the PROTIC project (Stillman 2014) as well as during extensive consultative meetings with other NGOs and visits to the field, and by thinkers in the formative period of the project in April and June 2015. This can be considered as part of Phase I activity in terms of Stoecker's model (see Figure 1). Oxfam emphasized that the importance of the project was its desire to build a relationship between Oxfam and its partners and leave behind knowledge and skills, in contrast to experience with other researchers who came, took, and left NGOs and communities behind. Consequently, as a continuation of Phase I, and resulting in Phase II, over a year was spent conceptualizing the project, and after funding was obtained, the middle of 2015 was spent in further consultation and negotiation between members of the Monash team and stakeholders in Bangladesh, including villagers, NGOs, and Oxfam, about the direction of the project.

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[Figure 12.2 about here]

Figure 12.2: Timeline for PROTIC

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An important outcome of these negotiations was the project brochure,³ distributed at the PROTIC launch in June 2015, that reflected a consensus around language, concepts and methods for the project. Local political and academic dignitaries attended the event. A table from the brochure appears in Figure 3.

The third figure, from the brochure, represents the project as seen by Oxfam workers, local NGOs Monash and other academics. It shows key components of the intervention stage of the project, including actors, outcomes, and processes (see also Figure 1, Stage III: Intervention).

[Figure 12.3 about here]

Figure 12.3: Program intervention from the PROTIC brochure June 2015

Like the 4-stage PAR cycle, this was an "ideal type", but was very useful as a reference peg for the project around which actions and conversations could take place, and upon which public presentations were made. Community actors – villagers--were deliberately placed at the top of the diagram in terms of the people involved. The Benchmarking survey—to get more information about the community use of ICTs, took place in December 2015, though it was some months in the planning.

Through the process of negotiation between Oxfam and Monash, including input from village consultations during the program development stage, PROTIC's main goal was expressed in program documentation as:

To develop current, accurate, comprehensive, reliable and trustworthy Bengali-language interactive and localized information services and information provision skills for the community, particularly for women in agriculture, by providing access to information that enables them to act to improve their, and their communities' well-being and livelihoods.

The Project

For guidance in Bangladesh, Oxfam and Monash turned to Research Initiatives Bangladesh (RIB), which had a long history with Gonogobeshona or PAR (Research Initiatives Bangladesh, 2014). Meghna Guhathakurta, its director, is a well-known Bangladeshi public intellectual, a prominent writer on gender issues in the country and activist for community rights (Guhathakurta, 2003; Guhathakurta and Van Schendel 2103). As Suraya Begum, who works with RIB has said, "A central concept in Gonogobeshona is the premise that when it comes to knowledge and the ability to think, no group, class or community is more "advanced" than the

³ It is normal practice in Bangladesh to produce such materials in English as this is the working language of the international NGO sector.

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other" (Begum and Chakraborty 2017:11). Thus, PAR is about breaking down barriers between groups, particularly between what she calls "the common people" who believe that the middle class are the experts. This is particularly the case in Bangladesh, where there is a culture of deference to authority.

Initial planning for local PAR implementation was conducted by Monash and Oxfam staff during December 2015-March 2016 when Monash staff and Oxfam staff participated in discussions and training with RIB. At the start of February 2016, another 5-day intensive workshop was held where the participants learned about the process of self-inquiry and there were also field visits to other sites where PAR projects were in place. Over 30 participants were selected by Oxfam, including key villagers, representatives of the local NGOs, the contracted telco, and local universities. The aim was to develop a shared understanding of PAR/Gonogobeshona, its strengths and weaknesses particularly as related to bottom-up activity, and to focus specifically on the effects of gender on community action and the development of a community voice. Additionally, on 22 July 2016, what is known as a "national seminar" for policy makers, academics and NGOs was also held at the University of Dhaka with speakers drawn from the project, academics, several of the villagers, as well as Larry Stillman by Skype (Begum and Chakraborty 2017).

Furthermore, during the first quarter of 2016, two-hundred women agriculturalists and pisciculturalists (100 each in 2 isolated villages in target regions), were provided with smartphones and phone credit by the project to enable them to access information on agricultural topics relevant to their everyday lives, and with PAR training. Additionally, there were control villages, already working with the local NGO on community development projects. They were not provided with phones by the project in order to compare the effects of the intervention.

The first community that worked with smartphones was in the far north-west of Bangladesh, on the river Teesta near the border with India. People in this area are heavily dependent on river flows for their crops. The second community lives in the ecologically fragile southern mangroves region, known as the Sundarbans. Its economy is based on aquaculture and small farming. A main problem in this area is the increase in salinity due to climate change and the spread of shrimping.⁴ Oxfam staff used the term "animator" to describe their hopes for an activist role for the village women, based upon the language used by RIB. Suraya Begum from the research institute has said that "animators play a pivotal role in Gonogobeshona. Animators are the agents who can stimulate people into creative action" (Begum and Chakraborty 2017: 11). Oxfam believed that through PAR training the farming women would "animate" others to become engaged with smartphones.

⁴ A third community in the north-east Sylhet region became involved at a later stage of the project with a similar number of women provided with phones but was not subject to the same field strategies or comparative research, and is not discussed here.

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Oxfam, with input from Monash, also contracted a telecommunications service (telco), which had experience in providing information services, to provide localized agricultural information about crops, poultry, livestock, vegetable gardening, fish and crab culture, and weather. Consultations by the telco with the women showed that they preferred very specific, localized information. The women were also very concerned that there would not be any ambiguous or unintentionally misleading information because the cost of error—no food production—was of critical importance to them.

Information was sent to the villagers via SMS and outbound dialing (OBD) on a regular basis, usually weekly, beginning in 2016, until 2019 (see Figure 2), based on the experience of the telco with other information campaigns directed at cultivators. Information had to be carefully targeted and matched to the agricultural cycle and local needs, otherwise it was meaningless.

Messages included recommended planting times, or the need to treat plants for particular bugs. Follow-up calls could be made to the call centre. In addition to this, the telco developed two mobile phone apps—one on maize production and the other on the government subsidies available to villagers for the project. The telco adapted one app from a beta version developed by a Monash University student for a summer project.

The local NGOs which were part of the project also hired local community development staff to provide ongoing smartphone training and support at the village level, including meetings with local government and extension services. We also know that some of the women began to innovate with the phones, using various apps (such as IMO) for video-calls to families outside of the village (for example in India). Others downloaded or obtained apps with hymns and prayers relevant to Hindus or Muslims. Some husbands used the smartphone to film sermons by religious speakers. Other women downloaded self-care and beauty apps. Others obtained movies. They often installed apps by Bluetooth from the tiny phone stalls in local villages, rather than downloading them as that was too costly.

In November 2017, Oxfam produced a locally-distributed report (in English and Bangla), about the effects of the project through the use of PAR during its pilot phase (Begum and Chakraborty, 2017). The report concluded that there was increased interaction and precision in language to describe issues by the women, "which in turn has given them a sense of unity and improved their articulation [sic] as well and they have provided further feedback on the information they want. They are trying to identify their own problems. Their demands get more and more precise as the problem identification becomes sharper" (Auvi and Chakraborty, 2017: 31). The women had also begun applying for various social benefits -something they had not had information about before. The point about becoming more articulate is quite an important one: we observed that women were using veterinary terminology quite freely, and despite supposed low levels of literacy, some were keeping organized notebooks (notebooks don't need recharging!) of information in Bangla, and developing wall charts for sharing with others, including phonetic spellings of medicine names. Their innovation in using written records is very important, low-cost, and may in fact be a better solution in many cases than keeping vulnerable mobile phones as an information source (Frings-Hessami et al. 2020).

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The government attempted to create a social support app, but it was considerably delayed due to changing government criteria. We had also hoped for a local university-linked research project to analyse call data and relate it to the distribution of text messages by the telco on particular topics. As all this was in Bangla (including call logs), it could only be done by a local researcher. Unfortunately, due to internal issues at the relevant university, in which we could not be involved, the project never went ahead, depriving us of a valuable longitudinal source of data which could have demonstrated causal effects for the SMS information campaign and its many different messages, as well as the calling habits of the women to the call centre. The messaging of SMS information and the call centre operation continued until mid-2019.

Once the villagers showed interest in doing new things with their phones, the project management group brainstormed a project using Facebook as an information medium during 2018. While there were initial thoughts by the team about developing a platform separate from Facebook, local staff believed we should go with what was already public. Many of the villagers had heard about Facebook, but had never used it, even though it was becoming very popular in the country.

The community development workers subsequently engaged in Facebook training with the women and encouraged them to make posts, and upload photos and videos. However, the independent use of Facebook was not substantial, and tended to reflect what they were being taught by the community development workers. There was also a natural element of hesitation by some of the women to put themselves online because of the culture of shaming women who are seen to be too "open". The local NGOs and Oxfam also had concerns about community safety and privacy due to some instances of harassment. While this is a known problem for the urban middle class, it is clearly a new problem in other parts of the country.

The most effective means of obtaining evaluative information was the visits by Monash staff to Oxfam in Dhaka or to the field when we met face to face with Oxfam, NGOs and sometimes the village women. We encouraged the women to speak out as much as possible either in Dhaka or in the natural setting of their village. During these meetings we used the classic white board, flip chart or paper hung on walls and people charting out the data and assessing the value and worth of activity. Such activity was not new to them, as it is part and parcel of community development used by local NGOs. While most of the women were more inhibited in speaking to such audiences, a number were quite articulate and able to talk about community needs and responses. This produced naturalistic information on what had been done and provided information as a means of developing project direction (Guba and Lincoln 1981; Lincoln and Guba 1985). Oxfam then conveyed the results of these meetings to the local NGOs who also sought input from the local communities.

Additionally, several specific workshops on issues such as information literacy and cyber safety were held with the village women. In March 2019, a workshop in Dhaka brought together 12 leading project participants from the two locations to assess their information literacy. A participatory technique was used in the workshop, engaging the women in learning, sharing, and speaking out. The results gave important insight into participants' information seeking,

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evaluation practices, and preferred ways of preserving information, which were further discussed during focus groups the following month in one of the villages (Frings-Hessami et al. 2020). The workshop also gave insight into participants' understanding about cyber safety and how collective practices and other cultural norms contradicted what is generally emphasized for information privacy and cybersecurity.

The workshop showed that women understood their information needs and where to find information. While the concept of an information source was new to them, the participants were able to differentiate information needs and its sources. Moreover, for some information, such as agricultural information, their search went beyond immediate needs to future needs like planning to increase production. This also revealed information format preferences such as the use of pictures and photos that were easier to use in conversation and learning when sharing with others.

The women were beginning to act as what Wadsworth has called a "critical reference group" to the project, and they were in fact regarded as such (Wadsworth 2011:28). They were finding their voice, advocating on issues with their local councilors, becoming more comfortable with technology (for example, starting to use multimedia functionality to capture local data), or vaccinating their own animals and using a technical language to describe medicines that they used. They were able to assert their needs in a language that others understood.

Ultimately, however, fieldwork conditions and resource constraints were such that it proved impossible to implement an ongoing PAR evaluation process with the communities. We recognized that the ongoing PAR evaluation process in Figure 1 Phase IV, remained an ideal, and was impossible to achieve in practice due to the impacts of distance, resources, languages, security and different approaches to the collection of data in the field. Despite these limitations, the ideal still helped to craft consciousness about PAR in the project and has influenced the development of the second stage of the project funded for 2019-2024.

REFLECTIONS

NGOs are very careful about how they act in Bangladesh, where government permission is required and political patronage essential. This is in addition to the traditional patriarchy and hierarchy found in villages, and the intersectional disadvantage experienced by women. NGOs also tend to operate in a more hierarchical and guiding fashion, rather than encouraging independence on the part of project "beneficiaries", the term commonly used to describe members of a target community. Local level projects are the bread-and-butter of NGOs, and project control remains with them. Furthermore, in Bangladesh projects are usually designed by researchers or NGOs beforehand, signed off, and implemented under contract.

In contrast, in this project the multiple partners could query, reflect, correct, and alter the project as part of ongoing action research. In this spirit, the Monash staff endeavored to establish open and trusting relationships with Oxfam staff with frequent online conversations and physical

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presence. The Oxfam staff became quite excited by PAR possibilities, particularly at the grass roots.

However, collaboration was challenging. Between field visits, we were unable to always meet monthly online, due to conflicting schedules and, at times, to the low quality of Skype or Zoom, or even phone connections. Email was not always adequate when discussing quite subtle matters, and there were problems in conveying issues in mutually intelligible English. But it needs to be stressed that none of this detracts from the overwhelming goodwill and trust which existed. We were just dealing with a complex project across distance.

The major participatory innovation for the project turned out to be the monthly meetings in the villages. Oxfam staff also attended a number of these meetings. We encouraged the meetings to be as open as possible, though this was not without difficulty, as the local NGO workers tended to take a leading role in discussion, rather than give women a free voice. Additionally, there was traditional deference to a few women leaders in the villages because of their recognized authority.

Despite this, Bangladeshi PhD students attached to the project, with their insider/outsider status, were particularly aware that the women in the project were subject to surveillance and monitoring by husbands, extended families and the community-at-large, in line with local cultural practices. Reputation and being seen as a "good women" are everything. The women's capacity to innovate with a smartphone can come into conflict with a culture of traditional restraint and constraint. Additionally, the NGO checked the women's Facebook pages to make sure that they were positive. Some husbands also checked the call history, SMS and Facebook activities. While some phones had a password, it was likely to be shared among the family members so it was quite easy to get access to the apps in the phone including Facebook. From other data, we have the observation from one husband that:

"After coming back from work I checked my wife's phone every night. It is my duty to check it and keep her in the right way. NGO has given the phone but they will not take any responsibility if anything bad happened or if they respond to a trap. My respect, my family will be affected".

In fact, according to Anindita Sarker, some of the women engaged in a form of "display" to demonstrate their compliance, for example, deliberately NOT sharing their phones with other members of the family when NGO or Monash researchers were around. But some also engaged in non-compliance. Even though they were asked to display photos of themselves on their Facebook profiles by the NGO, some did not do so, out of reputational concern (Sarker, 2021).

There were dropouts from the monthly meetings, and dropouts from the project. Many women were simply too busy with their everyday family and farming responsibilities to take part.

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Dropouts and breakages of phones were not reported to us until many months later, compromising our research findings.

It was a matter of trial and error over some months until Monash, Oxfam and the Italian researcher were able to develop a simple protocol to guide discussions. The original research questions relating to a theory of social-technical change were far too complex to implement (and easily translate) at such a geographic and cultural distance. NGO workers did not feel confident writing narrative reports, even though they sometimes made their own private notes (in Bangla). Their concept of reporting was something narrower, consisting of numeric and factual data according to prescribed reporting formats (for example, number of participants and hours spent in a particular training). They said that they were not sure what to write in a report or if they should write anything beyond the required structured information. As an example, they were unsure whether to include subjective impressions when visiting the participants, even though Monash researchers had emphasized the importance of this kind of observational data. There were also ongoing culture and translation issues: the field activity occurred in Bangla and had to be communicated to Monash researchers in English. Some field workers said that they were more comfortable sharing their findings verbally. However, they did not speak much English, and the simultaneous interpretation we thought we could get lacked detail, despite laudable attempts by our Bangladeshi colleagues. This resulted in an unanticipated strong filtering process and much was lost in transmission.

As a potential solution, we came up with the idea of recording the monthly meetings. We arranged for 36 recordings of meetings from mid-2017 to mid-2018 (several meetings were held in each village each month as the women were broken up into local community groups for community organization purposes. However, problems with the installation and the sharing of the database between our university and outsiders proved to be an irresolvable bureaucratic nightmare. In addition, some meetings were not recorded or forwarded to Oxfam in Dhaka. Additionally, trying to transcribe and translate was an impossibly large task. Ordinarily, such a quantity of group discussions—sometimes with people talking over each other—would be a treasure-trove for a researcher, but we were in fact, in real field work conditions with limited skills and resources available to us at a distance. Only a selection of the recordings were consequently analyzed, and even then, the immediacy we were hoping to capture—the knowledge in them to be used as part of the ongoing research—was lost.

Despite such problems, the meetings were particularly useful in helping the women to identify many local problems that could be addressed by the project, including agricultural and fisheries issues, lack of electricity (many were reliant on solar panels or charging in village shops), restrictions on the movement of women due to traditional values, and the lack of job opportunities, which resulted in migration by men to other parts of the country (Auvi and Chakraborty, 2017).

With these small steps toward a PAR framework, Stage IV (participatory evaluation) was never effectively achieved. While PAR evaluation as an ongoing process looked good in theory and in a brochure, its multilevel transformative potential remained theoretical and aspirational, mostly

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due to institutional and logistical constraints. In fact, in November 2019, the most practical thing to do was to bring key village women from the two villages to Dhaka, along with other stakeholders such as the local NGOs and academics, and workshop project findings with them in a summative fashion. The hard question is whether or not multileveled PAR across cultures, time-zones, and distances is possible or even desirable. Having to spend two or more days from Dhaka travelling to a village site for a short, supervised visit does not amount to in-depth participatory action research. In the same way, are villagers coming to Dhaka under the aegis of an NGO really "free agents" in their participation? Who benefits from this?

Thus, while Oxfam organized meetings between Monash researchers and project partners as frequently as possible, they lacked a breakthrough PAR method from the bottom up for a project design and evaluation. Oxfam recognized that PAR was not quite working as it could be as an on-going, transformative process. In an ideal PAR project, Monash and Oxfam would have spent months in the field working with the villagers in different parts of the country to design a project about mobile phones and let them take a direct role in crafting a solution. Institutionally, culturally, and logistically, this was not what took place. Perhaps the days of years-long village research, as found in older works about Bangladesh are over, because of logistical, funding and security challenges (Arens, 2014; Hartman and Boyce, 1983).

In fact, it is clear that some of the women farmers (the animators) and the NGO field workers wanted a more top-to-bottom integration of PAR, and Oxfam staff said that "participants stressed that PAR was not sufficiently understood..., and that there remained a lack of capacity in terms of facilitating PAR activities" (Chakraborty and Akter, 2019: 9), but we were unable to bring about a strong change in direction.

Even with this problem at an institutional level, an unanticipated outcome of the project is that Oxfam has undergone a huge transformation in its own thinking about the role of technology in the work of an NGO, and about using participatory methods. Oxfam also now uses the PAR experience in PROTIC for its own advocacy of social justice issues with government and opinion-makers in Bangladesh.

The project influenced Oxfam's thinking particularly because it was in accord with Oxfam's Asia region program which emphasized both more effective use of ICTs and more participatory approaches to development. They reported that PROTIC was:

A breakthrough in Oxfam's work in Bangladesh, which also enriched the RECALL intervention [another major project] through ICT. Approaches like PAR have made this project "learning by doing" while involving multi-stakeholders in implementing in two hard-core vulnerable areas in Bangladesh. It is expected that a holistic approach will bring success in the long run with effective and timely intervention by all stakeholders involved and the evaluation will be a source of inspiration (Chakraborty and Akter 2019:9).

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At the village level, the contrast between "life before PROTIC" and "life after PROTIC" can be summarized in these statements from the field work with village women, drawn from the workshops and other more traditional interviews and research conducted in the project (Stillman, Sarrica, Denison, et al. 2020; Stillman, Sarrica, Farinosi, et al. 2020):

Before PROTIC and the Smartphone

- *I had no place in my family to give any opinion or suggestion for my own family development.*
- *I lost my legs when I was very young, which made me physically handicapped. I always have challenges to make my voice heard and challenging life in social circumstances.*
- *Our village is a very difficult place to cultivate crops, the land here is very salty. And the help for anything is far away from here.*
- *My husband used to have a feature phone, and I was scared to touch it as I feared what it do something wrong.*

After PROTIC and the Smartphone

- *I get loads of information on agriculture, I share with my neighbors and use them on my own field too.*
- *I have built a library of eBooks that I have downloaded from Google and now I share those with my family members and friends*
- *Protic Call center helped me to save my ducks, and previously it was very hard for me to get a doctor here, it used to take two days and 300 kilometres on average to bring a vet.*

More broadly PROTIC has been featured on Bangla TV and in the English and Bangla press. Most recently, a color supplement, edited by The International Center for Climate Change and Development (ICCCAD) appeared in the English-Language *Daily Tribune* in December 2019 (*Climate Tribune*, 2019).

CONCLUSIONS

In this project there were a host of factors at play beyond our desire to empower women with mobile phones. These inhibited the more aspirational aspects of the original PAR model that had been developed. Additionally, real time and space differences between all players made coordination extremely difficult. Despite this, there were tangible changes at the grassroots and in Oxfam. Perhaps the academic researchers could have been more prescriptive in what they wanted of both Oxfam and its partners, but it was felt that this detracted from a more open, exploratory and PAR approach. There was also a concern to avoid research colonization that would withhold research knowledge and skills from Oxfam, the local NGOs, and the villagers,

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rather than engaging them as much as possible in the act of knowledge production, difficult as that was.

The observations of the human computer interaction (HCI) researcher (Nova Ahmed), are particularly important, because they show a neat overlap between the aspirations for PAR in the project as expressed in Figure 2 and a progressive HCI agenda. HCI is at the software design end of things, and is struggling to recognize social and human diversity (including gender), particularly in the development world (Ahmed et al. 2016). From Ahmed's perspective, PROTIC can be critiqued in at least two-ways. First, PROTIC was adopting existing technology tools for women in the community, rather than looking to develop a new "indigenous" tool. The project chose to look at smartphones, believing that this was the emergent technology of the time which would generate public interest.

In fact, as we saw in the project, some of the outcomes operated at a much simpler community level on the basis of a better understanding of community dynamics and information flows. The development of an "indigenous" tool would have required considerably more time spent in the design phase (and resources spent on it, on the ground), resulting in little time for implementation, observation, evaluation, and demonstration of effects, despite the deeper insights it could have provided. The community would have also had less time to just use the phones as they wished in the local setting.

From the Monash perspective, looking back, far more time and effort should have been spent cultivating more "critical reference group" activity before engaging in the broader intervention. (Wadsworth 2011). In fact, it was only by accident, during the writing of this chapter, that we discovered that Wadsworth had also spoken and written about this issue to a PAR conference in Bangladesh. This knowledge only came about when a book that had been given to the first author in 2016 by Research Institute Bangladesh was looked at again (Wadsworth 2004)! Hindsight is a wonderful thing.

Second, even though PROTIC did not achieve a fully structured PAR cycle as proposed (and outlined in Figure 1), the problematic situation of introducing an open technology like the smartphone in a sensitive community environment is also familiar in feminist HCI thinking which has a concern for appropriate methods and products in a country like Bangladesh (Bardzell 2010; Sultana et al. 2018). The development of suitable technology, content, and safe interfaces for women in Bangladesh has become a recognized problem, and will be considered in the next stage of the project (Sambasivan et al. 2019).

PAR thus provided the basis and guiding philosophy for this research project, but our experience demonstrates the essential need to consider the complexities of different cultural and resource contexts at the different levels of a project to achieve nuanced and appropriate outcomes. In the case of PROTIC, the cultural and resource complexities included the diverse backgrounds of all participants, including the research team. One significant but unintended consequence was the influence on our major NGO partner, Oxfam in Bangladesh. This

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suggests that evaluation of PAR impacts should use a broad view, including going beyond the boundaries of a particular project, its methods and particular outcomes.

Furthermore, as the project progressed the ideal of "empowering" PAR, flavored with Western ideas about individualistic feminism, increasingly rang hollow for the Monash researchers. We were guest researchers in a gendered, patriarchal and hierarchical society.

We learned that some women were reluctant to share stories about their experiences in an open environment, even with other women whom they knew. They didn't want to put their reputation or security at risk, including domestic violence or the new phenomenon of stalking and harassment on the line. PROTIC could not adopt change strategies which would have endangered women's safety.

And finally, everyone who participated from Monash has been deeply affected in their perception of not just Bangladesh and its people, but our views about the relationships between privileged researchers and people in the developing world. It has been a life-changing experience for us and will continue to be so in further stages of the project.

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