Closing the gender data gap with young women and smartphones in Bangladesh? An anticolonial feminist investigation

Isobel Talks

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Abstract

Since the 1970s, gender inequality has been a priority issue for international development organisations. Solutions put forward to address this concern over the years have varied, ranging from grassroots movements to neoliberal institutions investing in women as 'smart economics' (Cornwall et al., 2008). In more recent years, and in line with the rise of ICT4D (ICTs for Development), mainstream development institutions have heralded the 'gender data revolution' as the key to unlocking equality between men and women. The UN, World Bank, Gates Foundation and others have all declared that "progress on gender equality depends upon our collective ability to close 'the gender data gap'" (Fuentes and Cookson, 2020: p.881). The central premise of this gender data gap discourse is that formulating effective strategies to overcome gender inequalities in the majority world is being held back by a lack of relevant information about women's lives. This constructs a reality in which gender equality is contingent on rigorous, complete gender data – i.e. that 'closing the gender data gap' necessarily precedes, and leads to, 'closing the gender gap'.

Yet despite the sudden popularity of this discourse, and the significant funding and attention that it has generated, the gender data gap and efforts to surmount it have received scant scholarly attention. In particular, how exactly gathering 'new' data on gender issues leads to the transformation of gendered power relations in lower-income contexts remains unexamined. Anticolonial feminist theories, such as postcolonial and decolonial feminisms, have long provided a critical lens through which to analyse international development projects that target women in the majority world. However, whilst the field of 'data feminism', which takes a critical feminist approach to the issue of data, is growing, there is as of yet little scholarship that applies anticolonial feminist theory to help critically investigate the gender data for development furore, and none that specifically addresses the central claim that 'closing the gender data gap' unequivocally leads to 'closing the gender gap'.

This thesis addresses these empirical and theoretical research gaps through an anticolonial feminist examination of a project seeking to close gender data and gender gaps – Girl Effect's TEGA (Technology Enabled Girl Ambassador) programme in Bangladesh. Through an anticolonial feminist analysis of six months of participant observation, interview and participatory action workshop data gathered whilst participating in the TEGA Bangladesh project, this thesis finds that the 'gender data gap' logic, of which TEGA is exemplary, is flawed. Whilst development projects such as TEGA may state that "to create meaningful change for girls we need to close the global gender data gap" (Girl Effect, n.d.), from an anticolonial feminist perspective the 'gender data revolution' can be critiqued as maintaining the status quo whilst appearing to advance revolutionary change. This is because in reality gender data for development projects, such as TEGA, perpetuate the techno-solutionist, instrumental, top-down 'development' that has dominated the sector since

the 1940s, and are thus driven by the priorities and needs of development organisations and their funders, rather than the majority world young women they seek to serve. The thesis concludes by arguing that an anticolonial feminist approach could enable gender data projects such as TEGA to better close 'the gender data gap' and the 'gender gap'. This would, however, entail a radical re-envisioning of 'development' as a process of positive change led by and for majority world communities themselves, alongside overturning the neocolonial global power hierarchies that are responsible for the unequal conditions which development seeks to fix in the first place.

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Lastly, to my family and close friends – thank you for believing in me and keeping me going throughout the many ups and downs. I would be nowhere without your unfaltering love and support.

Declaration

I declare that this thesis is a presentation of my original research work and has not previously been submitted for a degree from any other university. To the best of my knowledge, this thesis does not contain any material previously published or written by another person except where duly acknowledged in the text.

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The TEGA promise

My name is _____ and I am a TEGA.

This is my TEGA promise to the girls of <country>.

I promise to be kind.

I promise to listen.

I promise never to give advice.

I promise never to pass judgement.

I promise to be trustworthy.

I promise to be courageous.

I promise to give and earn respect.

I promise to always learn and reflect.

I promise to be Tech Smart.

I am committed to having the voices of the girls of [country] heard and listened to.

Signed

Chapter 1: Introduction

"The root of gender inequality isn't lack of data about women –
it's a lack of power in women's hands"

(Cookson and Fuentes, 2019: n.p.)

1.1 Thesis Rationale and Contribution

Since 1970, when Esther Boserup published her pioneering book 'Women's Role in Economic Development', the issue of gender equality has been a key priority for Western development organisations seeking to bring 'progress' to places deemed 'under-developed' (Momsen, 2010). However, as development is a much "contested …. complex and ambiguous" concept (Thomas, 2004: p.1), there have been multiple, overlapping and contradictory approaches to addressing the "global gender gap" in equality between men and women over the last 50 years (World Economic Forum, 2019). Despite the wide variety of efforts that have been made to bring about gender parity, from grassroots social movements to international agreements, not one country has successfully closed the 'gender gap' (Equal Measures 2030, 2019). For example, whilst the last 25 years has seen the number of girls enrolled in school across the world increase exponentially, girls continue to be excluded from education to a greater extent than boys (UNESCO, 2020). This inequality has been exacerbated by the COVID-19 pandemic, which has brought "extra challenges" that mean "an additional 11 million girls and young women may never return school" (Azoulay, 2020: p.vii).

Against this backdrop, 'closing the gender *data* gap' has emerged as a key development priority amongst Western development institutions (Fuentes and Cookson, 2020). In this context 'data' refers to digital information that can be processed or stored by a computer. The "datafication" of development (Taylor and Broeder, 2015) has come about as part of the rise in prominence of ICT4D (ICTs for Development). ICT4D, motivated by the supposition that "ICTs as tools … help alleviate poverty and improve communities' wellbeing" (Acacia, 2003: n.p.), appears cutting-edge due to the focus of the field on how innovative digital technologies can be used to improve people's lives. Examples of this include digital data projects such as blockchain identification systems for refugees (Cheesman, 2020), citizen-led drone image collection to solve disputes over land use (Pawelke et al. 2017), and the work of the Basic Internet Foundation to provide free access to digital information in schools in the majority world (Johansen et al., 2021). However, despite the growing number of ICT4D interventions, critical scholars including Kleine and Unwin (2009) argue that the field is a

naive reprise of the modernisation and technodeterminism that characterised earlier forms of international development, such as the Green Revolution of the 1970s.

Development institutions, and especially those with a gender focus, have also long been preoccupied with developing internationally recognised 'indicators' to track progress on 'development goals' and ensure 'evidence-based practice' (Buss, 2015; Fuentes and Cookson, 2020; Liebowitz and Zwingel, 2014; Springer, 2020). With the heralded arrival of 'big data' technologies these two development trends have coalesced and resulted in a significant amount of attention and funding being directed towards "fostering and promoting innovation to fill data gaps" to "enable more agile, efficient and evidence-based decision-making and … [to] better measure progress on the Sustainable Development Goals (SDGs)" (UN, n.d.).

Efforts to 'close the gender data gap' are one part of this "wider enthusiasm for big data 'solutions'" in international development (Lyon, 2014: p.6). Since 2012, when then U.S. Secretary of State Hilary Clinton spoke of the need to "make women count" (Barne, 2012: n.p.) at the World Bank Data 2X launch in Washington DC, the phrase 'close the gender data gap' has become common parlance across the development sphere. At the 2016 Women Deliver conference, Melinda French Gates announced that the Gates Foundation would be committing $80 million to the cause, and in 2019 UN Women launched the interactive Women Count Data Hub. The argument made by these institutions is that 'gender gaps', i.e. inequalities between men and women, cannot be closed without also 'filling in' gendered gaps in data:

> By adopting the SDGs, the world agreed to achieve gender equality by 2030. But **we cannot close the gender gap without first closing the data gap**. We simply don't know enough about the barriers holding women and girls back, nor do we have sufficient information to track progress against the promises made to women and girls. We are committed to changing that by investing in better data, policies, and accountability
>
> (Melinda French Gates, 2016a)

The 'gender data gap' discourse upheld by mainstream development actors, and exemplified by the above quote, is therefore that *closing the gender data gap* will lead to closing the gender gap. This treatise is based on the belief that a "paucity of data hampers effective policy-making" in the first instance, and "hinders effective monitoring and accountability" in the second (Chattopadhyay, 2016: p.4). In other words, having the right data on women and girls' lives should mean that development

organisations can design projects that address gender inequality more effectively and evaluate these initiatives more accurately.

Yet despite the fact that numerous "powerful international development institutions have called for a 'gender data revolution'" (Fuentes and Cookson, 2020: p.881), as of yet there has been little critical academic study of this phenomenon, with Fuentes and Cookson's (2020) paper and Delnevo's (2017) thesis notable exceptions[1]. In particular, there is an absence of empirical studies of development projects claiming specifically to collect digital data in order to close the 'gender data gap' and the 'gender gap'. As Heeks and Shekar (2019: p.1007) observe, despite the fact that "datafication is a key trend within international development … analysis of real-world experiences and their breadth of impact has to date been limited". Critical data for development (D4D) studies is an emerging field (Taylor and Broeders, 2015), as is data feminism (D'Ignazio and Klein, 2020). The former draws on critical development theory and concepts to analyse data for development projects, and the latter draws on critical feminist theoretical concepts to deepen our understanding of how data projects perpetuate intersectional gendered inequalities. Yet there is little overlap between the two nascent fields, with data for development projects specifically seeking to address gendered power relations receiving negligible critical attention.

Anticolonial feminist theorists, from both postcolonial and decolonial schools of thought, have been providing critical insight into the intersectional power relations inherent in development projects that target women in the majority world[2] for decades. Postcolonial theory provides tools for understanding the perpetuation of colonial power relations in development but has often neglected the ways in which "gender and sexuality are necessarily imbricated in colonialism and its legacies" (Chambers and Watkins, 2012: p.297). On the other hand, feminist theory has too often prioritised white women's voices and experiences over those of women in the majority world (Lorde, 1979; Moranga and Anzaldua, 1983). Postcolonial feminists brought these two bodies of work together in order to unpick the ways in which Western-led top-down 'development' is rooted in, and perpetuates, patriarchal *and* neocolonial power relations (Kothari, 2002). Meanwhile, feminist decolonial work has sought to foreground and develop new ways of thinking and being, often in collaboration with indigenous communities, to actively bring about an anticolonial, feminist future (Ruíz, 2021). An anticolonial feminist approach, using "postcolonial methods towards decolonial ends" (Delnevo, 2017: p.16), is therefore a fitting lens through which to critically examine Western

1 See Chapter 2, Section 2.8: 'Data for Development - The Gender Data Gap' for an extended discussion of this work
2 'Majority world' is increasingly used to replace terms such as 'third world' or 'developing world', as the latter two reinforce the prejudiced belief that the West is 'advanced' whilst the rest of the world is 'behind' and lacking (Raffaelli et al., 2013)

NGOs' efforts to 'close the gender data gap' in order to 'close the gender gap' in the majority world. However, as of yet scant academic research has been carried out taking an anticolonial feminist theoretical approach to the 'gender data revolution' in international development. A more detailed discussion of the literature review that identified this research gap can be found in Chapter 2: 'Data, feminism, anticolonialism and development: A Literature Review'.

This thesis makes a contribution towards addressing the aforementioned empirical and theoretical research gaps through conducting an anticolonial feminist investigation into a specific project seeking to close gender data and gender gaps – Girl Effect's TEGA (Technology Enabled Girl Ambassador) programme in Bangladesh.

1.2 The TEGA (Technology Enabled Girl Ambassador) Project

The TEGA project was founded by the organisation Girl Effect. It is exemplary of the 'gender data gap' logic, with the project web-page (n.d.) stating that "to create meaningful change for girls we need to close the global gender data gap". In order to do this TEGA trains young women in low-income settings to use a smartphone-based research application to collect gender data in their communities on behalf of other development organisations. They are paid for the research that they do, and after three months are awarded a Market Research Society qualification in digital research. As such, Girl Effect claims that their "ground-breaking girl-led research solution" enables "safer, faster, more scalable and authentic research" (ibid.), at the same time as being a "powerful girl empowerment intervention in itself" (Girl Effect, 2016: p.2), thus reducing both datafied and real-world gender inequality.

Founded by the Nike Foundation in 2004, Girl Effect became an independent entity in 2015. Headquartered in London, Girl Effect now has nine offices globally and works in over 50 countries. On the 'Our approach' page of their website, within the 'What we do' sub-section, Girl Effect writes that:

> We use media and mobile tech to empower girls to change their lives. In ways that millions of young people love and interact with

The organisation creates mobile platforms that provide information and a way for young women to connect to each other and to various services, as well as 'youth brands' including magazines, TV and radio shows, clubs, websites and music that seek to alter gender norms to give girls greater freedom and choice.

TEGA was first piloted by Girl Effect in Kano, Northern Nigeria, in 2014. The first full TEGA network was then established in Abuja, Nigeria in 2016. Since then, 450 young women have become qualified TEGAs in 7 countries (Nigeria, Malawi, Tanzania, Rwanda, India, Bangladesh and the USA). The project home-page (see screenshot below) states that "over 25,000 interviews" have been "conducted by our Technology Enabled Girl Ambassadors with girls and their communities".
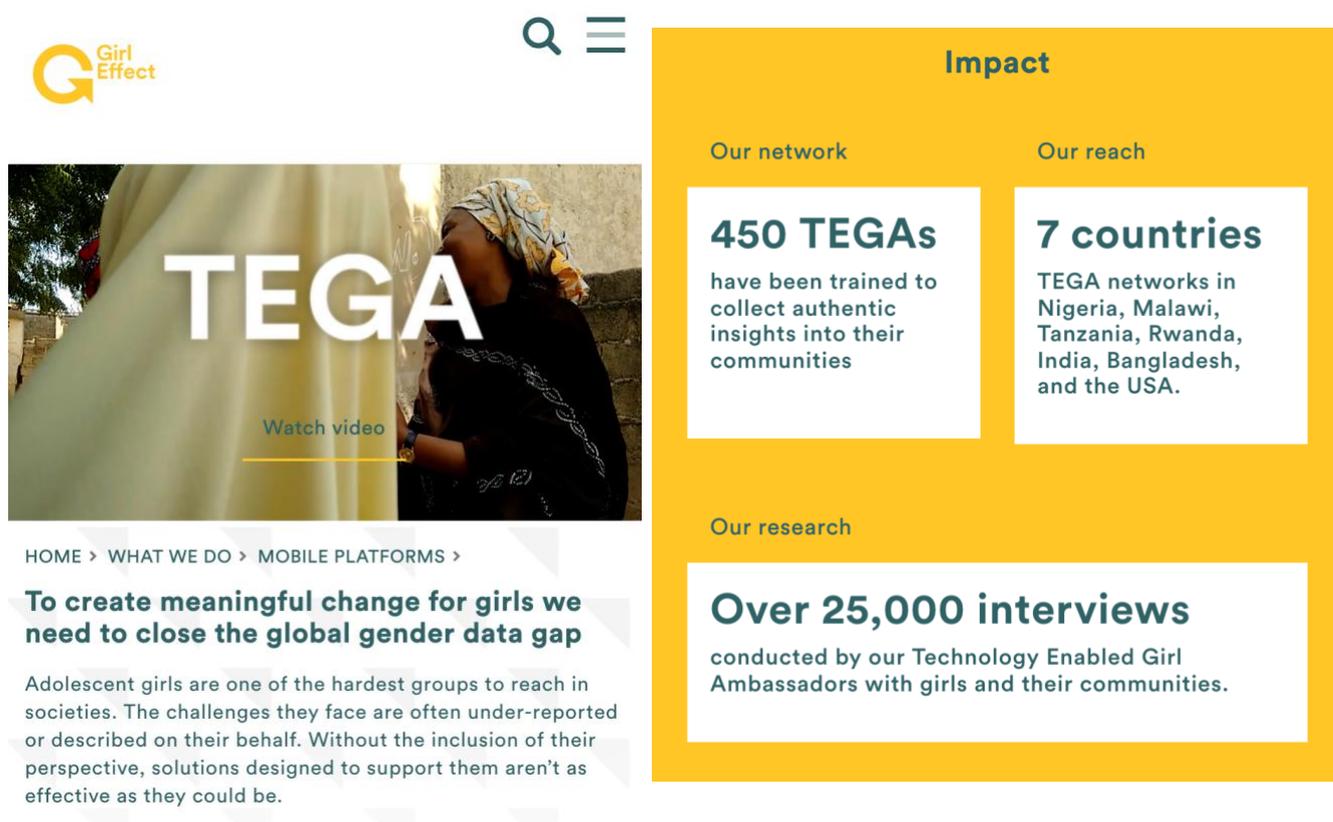
Figure 1: *Screenshots taken from the TEGA project home-page3*

TEGA was officially launched in Bangladesh in 2018. The funding for the initial two years of the project came from DFAT (The Australian Department of Foreign Affairs and Trade), who had awarded Girl Effect with a grant of $1,440,000 in order to set up the TEGA project in Bangladesh. The expected start date of the project was 02.06.17, with an anticipated end date of 30.06.19. However, in the end the project was slightly delayed in starting, and so ran until March 2020. The project in Bangladesh was based around a 'consortium model'. This meant that Girl Effect partnered with five NGOs, or 'consortium partners', in order to identify which data the TEGAs should collect. The five 'consortium partners' were all international development organisations engaging in work with women in Bangladesh. DFAT's funding of TEGA Bangladesh enabled these organisations to receive the data that the TEGAs collected on their behalf for free, with the intention that this would

lead them to better design and deliver their interventions and programmes for young women on the ground. Girl Effect also contracted an in-country partner, iSocial, to assist with running the TEGA Bangladesh project. iSocial, formerly known as Infolady Social Enterprise Limited, is a Bangladeshi NGO that is best known for its Kallyani project, which equips women with ICT devices (such as Tablets, Smartphones and Laptops) and a bicycle for them to then travel around the local area providing 'information' and 'products' for a fee. As Girl Effect is headquartered in London, the TEGA Bangladesh project was based in iSocial's Dhaka office. In the iSocial office there were project staff members employed by both Girl Effect and iSocial to work on TEGA. These included the Project Manager, two Research specialists, the Project Coordinator, a team of translators, and also the Safeguarding specialist.

The 48 TEGAs that were recruited at the start of the project were based in four different 'networks', one in Dhaka, one in Rangpur, one in Bogra, and one in Jessore. There were 12 TEGAs in each network. The TEGAs lived in different villages or neighbourhoods within these networks, with pairs of TEGAs living in the same place. A map showing the distribution of the networks can be found below (See Figure 2). The stars denote the location of the networks:

Figure 2: *Map of Bangladesh with stars showing the location of the four TEGA networks4*

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4 Adapted from map of Bangladesh from Ontheworldmap.com – note 'Jashore' is the official spelling of 'Jessore' as of 2018

In each network there was also a team of 'Field Officers', one per two TEGAs, who accompanied the TEGAs as they carried out their data collection, and were there to provide support and feedback on any issues that arose to the head office. They were also in charge of recruiting respondents for the TEGAs to collect data from according to the sampling criteria set by Girl Effect and the consortium partners. There was also a 'District Officer', one per network, who oversaw the running of the project in that particular area. A diagram depicting the different organisations and team members involved in the TEGA Bangladesh project can be found below:
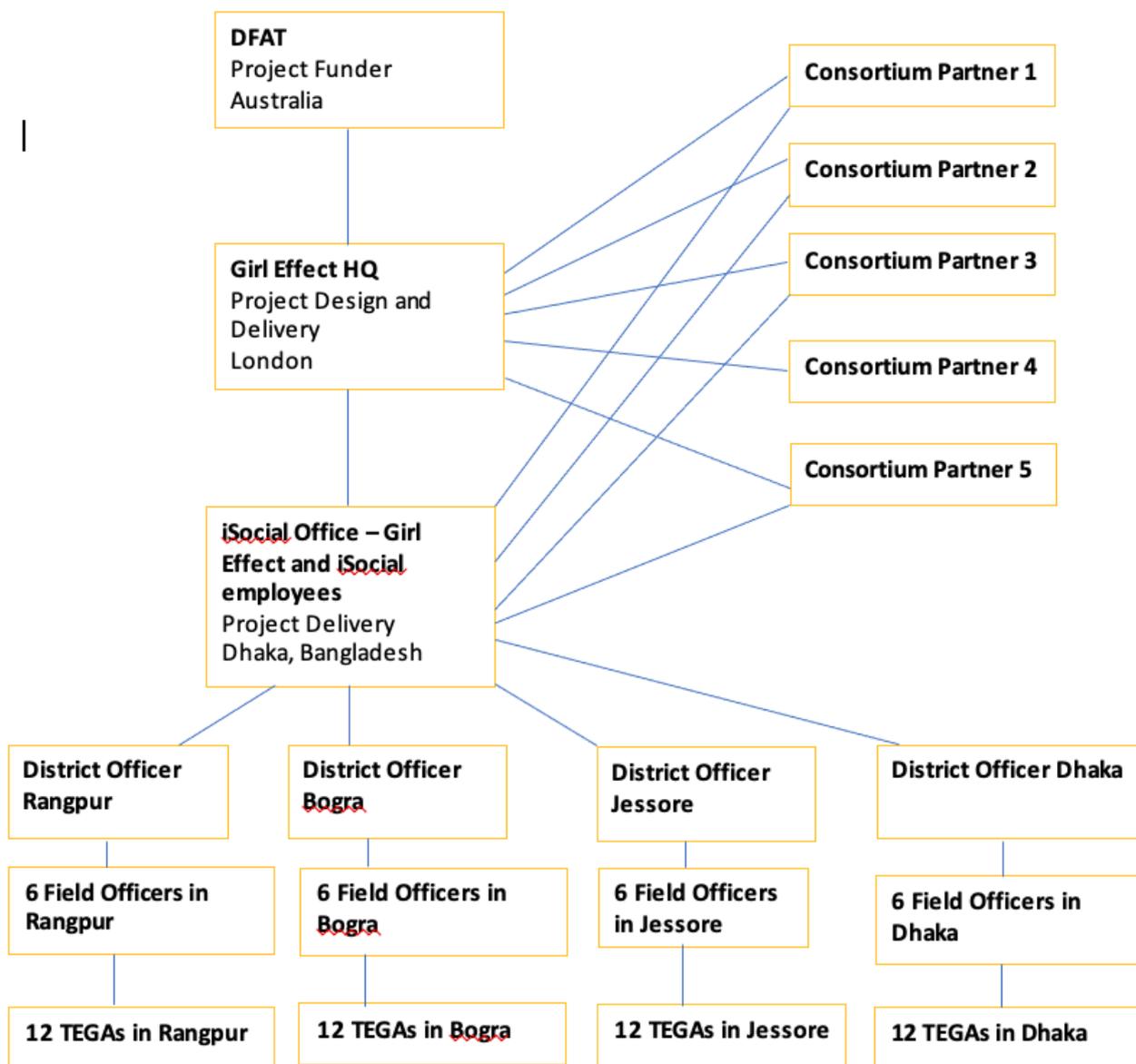
Figure 3: *Diagram showing the different organisations and groups involved in the TEGA Bangladesh project, and their main lines of communication*

1.3 Thesis Outline

When the TEGAs in Bangladesh joined the project back in 2018, they were asked to make a 'TEGA Promise' (See Page 10). As well as asking the TEGAs to state that they would be 'kind' and 'tech smart', this declaration also required the young women to show that they were 'committed to having the voices of the girls of [Bangladesh] heard and listened to'. Yet being 'heard' and 'listened to' does not necessarily mean being understood or responded to appropriately. The 'gender data' discourse in development – which TEGA Bangladesh perpetuates – is that 'closing the gender data gap' through listening to girls and collecting their stories will lead to 'closing the gender gap' through enabling international development organisations to 'hear' girls' needs and aspirations and design better solutions to meet these. However, these constructs of the 'gender data gap' and the 'gender gap' can also be a useful heuristic device to think through whether collecting new and better data does indeed lead to tangible change for young women in Bangladesh, or if a 'gap' between data and action persists.

Through six months fieldwork, which included participant observation, interviews, and participatory action workshops and community events, this thesis explores and critically considers Girl Effect's (n.d.). claims that TEGA closes gender data gaps and creates "meaningful change for girls" from an anticolonial feminist perspective. Further details of the methodological approach taken for this thesis can be found in Chapter 3: 'An anticolonial feminist methodology', and the detailed analysis of the empirical data that reveals the extent to which TEGA can be said to have closed gender data gaps and gender gaps can be found in Chapter 4: 'Closing the gender data gap', and Chapter 5: 'Closing the gender gap', respectively. Chapter 6: 'Enacting Anticolonial Feminist Data for Development' explores the findings from the participatory action workshops and community events which, in line with the decolonial feminist emphasis on 'praxis' rather than theory alone, involved working with some of the TEGAs to address one of their key concerns with the TEGA project – the fact that the findings of the gender data that they collected were not shared back with their communities. Whilst only a relatively small exercise, constrained by the financial and temporal limitations of a DPhil, this process highlighted some of the merits of, and obstacles to, realising an anticolonial feminist data for development approach.

This introduction has therefore made clear the rationale for, and contributions made by, this research. Whilst the 'gender data' development trend has attracted substantial attention and funding in international development circles, the 'gender data revolution' has received little academic analysis. In particular, there is an absence of empirical studies of development projects seeking to 'close the gender data gap' and the 'gender gap'. Alongside this empirical research gap, there is also

a theoretical research gap, whereby the rich seam of anticolonial feminist development critique has not yet been fully applied to the matter of gender data for development. This research lacuna provides the rationale for this thesis, which subsequently carried out an anticolonial feminist investigation into a development project that sought to close gender data and gender gaps – Girl Effect's TEGA project in Bangladesh.

Below is a summary of each of the thesis chapters, which gives an overview of the content of the thesis.

Chapter 2: Data, feminism, anticolonialism and development: A Literature Review

This chapter reviews the literature relevant to an exploration of the "gender data revolution" in international development (Fuentes and Cookson, 2020: p.881). This includes summarising the vast body of work on development, with particular attention paid to the area of 'gender and development', which has sought to identify how best to bring about gender equality and 'close the gender gap'. The sub-field of ICT4D – or Information Communication Technology for Development - is also introduced, which has increasingly been linked to gender equality efforts. Data technologies have become progressively popular in international development alongside the rise in enthusiasm for ICTs as tools for good change more generally. These legacies are noted to be the backdrop from which the interest in 'gender data' has arisen. Crucially, however, this review identifies the fact that despite the real-world surge in investment and interest in 'gender data solutions', there is comparatively little academic work available on this phenomenon. Furthermore, it is also ascertained, whilst reviewing post-development, post-colonial, decolonial, feminist and anticolonial critiques of (gender and) development, that despite anticolonial feminists holding development projects targeting women and girls to account for decades, their insights have made little headway into data for development studies, or ICT4D research more widely. The more recent fields of critical data studies and data feminism are also found to have infrequently come together, with the former drawing on anticolonial theory to a greater extent than feminist theory, and vice a versa. This literature review therefore highlights gaps in current academic research and understanding, providing justification and a rationale for this research.

Research Questions

This thesis makes several contributions, not only by providing original empirical data regarding a project seeking to close the gender data gap, but also through bringing so far under-utilised anticolonial feminist theoretical concepts to bear on the subject of the gender data revolution in

development. This thesis makes sense of the little examined unequal power structures within gender data for development, and suggests how an anticolonial feminist approach to gender data for development could go some way towards rectifying them.

It does so by critically investigating the claim that data for development projects are closing the 'gender data gap' and the 'gender gap' – i.e. inequality between men and women – through examining the TEGA gender data project through an anticolonial feminist lens. More specifically, this research sets out to answer the research questions below:

1. **From an anticolonial feminist perspective, what is the contribution of digital peer-to-peer research with young women towards closing the gender data gap and the gender gap?**

   a. In what ways did the TEGA project in Bangladesh close the gender data gap?
   b. In what ways did the TEGA project in Bangladesh close the gender gap?

2. **What are the wider implications of an anticolonial feminist approach for gender data for development projects in theory and practice?**

Chapter 3: An anticolonial feminist methodology

This chapter presents my research design and methodological framework. Reflecting the anticolonial feminist theoretical approach of this research, this thesis employed an anticolonial and feminist methodology. Having outlined what constitutes an anticolonial feminist theoretical approach in the literature review (Chapter 2), I begin this section by summarising the methodological principles of anticolonial feminism. I then move on to giving a practical account of selecting and negotiating access to TEGA as the field-site, and of how exactly the participant observation, interviews and participatory action workshops were carried out. However, I also reflect upon the extent to which the research design upheld the anticolonial feminist methodological principles of ensuring that the research benefitted the participating young women at the same time as seeking to minimise power relations between myself and them. Ultimately it was these guiding principles that led to the participatory action research (PAR) workshops, as PAR seeks to facilitate the participants taking the lead and benefitting from the research to a greater extent as the result (McIntyre, 2008; Brydon-Miller & Maguire, 2009; Torre 2009). The findings of this anticolonial feminist participatory process, including further discussion of its limitations, can be found in Chapter 6: 'Enacting anticolonial feminist data for development'.

Chapter 4: Closing the gender data gap

The first findings chapter explores the ways in which the TEGA project closed the gender data gap. It therefore directly addresses Sub-Research Question 1(a), and, alongside Chapters 5 and 6, partly answers Research Question 1. The findings presented in this chapter paint a complex picture, in which a number of factors, including power relations between those participating in the project, the context within which the research took place, and the technical constraints as well as affordances of the TEGA technology itself, all interacted to challenge the extent to which the project could close 'the gender data gap'. In particular, it is noted how the 'top-down' structure of the project, in which the design and delivery was led by external development 'experts' rather than in participation with the TEGAs and their communities, perpetuated these challenges. This not only limited the closure of the 'gender data gap', but also did little to contest entrenched power hierarchies in development and research and empower the TEGAs. Further details on the 'empowerment' of the young women involved in TEGA, i.e. the extent to which the 'gender gap' was closed by the programme, can be found below in Chapter 5.

Chapter 5: Closing the gender gap

The second findings chapter investigates the ways in which the TEGA project closed the gender gap. In doing so, this chapter directly addresses Sub-Research Question 1(b), and, alongside Chapters 4 and 6, also contributes towards answering Research Question 1. Girl Effect maintain that TEGA Bangladesh empowered girls and 'closed the gender gap' in two ways. Firstly, the digital information that the TEGAs collected constituted "deeper insights [that] have helped organisations design more effective and targeted initiatives that are having real impact in the lives of girls and their communities" (Girl Effect Team, 2019: p.2). Secondly, because the young women involved are "given skills to become qualified TEGA researchers", and are paid for the data collection that they do, Girl Effect (2016: p.2) also states that the project is "a powerful girl empowerment intervention in itself". Yet the data presented in this chapter, analysed through an anticolonial feminist lens, brings to light the more nuanced and complex reality of the project outcomes in the lives of the young women involved. The TEGAs testimonies about the uneven and sporadic distribution of the data collection work, and their intersectional identities, are foregrounded to show how these shaped the young women's experiences of the project in different ways. The chapter then moves on to considering this notion that the TEGA project 'helped organisations' to have a 'real impact' on 'girls and their communities', drawing on the perspectives of the TEGAs, the young women and other

respondents that they interviewed, and those of the development professionals involved in the programme.

Chapter 6: Enacting anticolonial feminist data for development

The third findings chapter examines the findings from a series of participatory action workshops and community events on child marriage run in collaboration with some of the TEGAs. It demonstrates how taking a participatory approach to gender data for development that lessens gendered and neocolonial power divides can ameliorate the ability of data to close information divides whilst also closing equality divides. This further addresses Research Question 1. Yet through reflecting upon and discussing the limitations of the process that the TEGAs and I underwent together, this chapter also identifies the structural constraints to enacting a participatory anticolonial feminist data project in practice, and what would be required to dismantle them, thus addressing Research Question 2. Drawing on anticolonial feminist work, this entails the radical transformation of 'development', so that it becomes a politicised movement for change led by and for women in the majority world and their communities, which directly disrupts the political and economic systems that perpetuate global inequalities. This chapter also draws on recent work on data activism to show how data could play a role in these anticolonial feminist alternatives to 'development', but makes it clear that 'gender data' alone cannot bring about radical change.

Chapter 7: Conclusion

Having conducted an anticolonial feminist analysis of an attempt to close 'gender data gaps' and 'the gender gap' in Bangladesh, this final chapter highlights the key contributions, conclusions and recommendations for future research, policy and practice that emerged through this process. Referring back to the research questions, it is argued that in situating the empirical evidence as to the ways in which the TEGA project in Bangladesh closed 'the gender data gap' and 'the gender gap' in the anticolonial and feminist critical literature, connections between this specific project and the long-running legacy of technology-centred international development projects focused on gender equality can be made. This means that the findings from this research can be extrapolated to draw wider conclusions about the ways in which neocolonial and patriarchal power relations are imbricated in the efforts of mainstream development organisations to close data and gender gaps. Furthermore, it is considered how this process also brought to light potential ways forward for the 'gender data revolution', not within the mainstream international development industry, but in other more revolutionary fora. There is a significant scope for researchers, policy makers and practitioners to build on these initial thoughts going forwards, in ways that make 'closing gaps' between those

with more and less power the central objective and aim of these endeavours, rather than hoping that data (or the next technological advance) will do this alone.

Chapter 2: Data, Feminism, Anticolonialism and Development: A Literature Review

2.1 Introduction

This literature review unpacks the key concepts and debates underlying the "gender data revolution" in international development (Fuentes and Cookson, 2020: p.881). Firstly, the concept of 'gender' is introduced. It is noted that whilst there are many different understandings of the term, it is often conflated with 'women' or 'women's issues' – as in the case of the 'gender data gap' in development. A necessarily brief overview of the history of development is then provided, broadly defining it as "good change" (Chambers, 2004: iii, p.1-2). It is emphasised that as there are differing "values and … alternative conceptions of the good life, there is no uniform or unique answer" as to what development should involve or achieve (Kanbur, 2006: p.5). In the mainstream sense development has entailed economically richer Western nations intervening in the majority world to supposedly bring about positive transformations. Progress on equality between men and women has been one of the key target areas for grassroots activists and international NGOs alike. The literature review summarises the different approaches within mainstream development to this issue, from WID (women in development) to GAD (gender and development).

ICT4D (Information Communication Technology for Development) is another sub-field within development that, building on the technodeterminism of the post-1940s efforts of Western nations to 'modernise' lower-income nations so that they can 'catch up' higher-income nations regardless of structural constraints, seeks to bring about and support 'good change' through new digital technologies. Development focusing on gender equality *and* ICT4D has begun to coalesce. For example, based on the observation that women in the majority world are far less likely to have access to digital technologies such as smartphones than men (GSMA, 2015) development projects have increasingly sought to give women access to, and the training to use, these innovations. Similarly, awareness that there is a relative lack of digital data available on women's lives in the majority world in comparison to men, and progress on gender equality stalling (UN Women, 2020), has led to initiatives being set up to leverage ICTs to collect 'big data' and 'close the gender data gap' in order to 'close the gender gap' (French Gates, 2016b). The literature review finds, however, that despite the large amounts of funding and attention being directed towards the 'gender data revolution' (Fuentes and Cookson, 2020) there is scant academic literature exploring this trend. There are few critical academic analyses of the 'gender data gap' discourse, but also there is a total absence of empirical studies of actual development projects seeking to 'close the gender data gap'.

It is also noted that whilst anticolonial feminist scholars have been at the forefront of critical analysis of international development projects that target women and girls in the majority world (McEwan, 2009; Wilson, 2015), the 'gender data revolution' has not been analysed through this lens. This is despite the fact that anticolonial feminist perspectives have proven illuminating in studies exploring other types of ICTs for development (Al Dahdah, 2017; Asiedu, 2012; De' et al., 2018; Karelse and Sylla, 2000; Masika and Bailur, 2015; Narayanaswamy, 2016; Nemer and Gray, 2019). In order to make this point, the literature review gives a comparative overview of the contributions, as well as the critiques, of post-development, anti-colonial (which includes post- and de- colonial work), feminist, and anti-colonial feminist perspectives on development. It also summarises the emerging fields of critical data for development studies and data feminism, pointing out that whilst both have important insights to offer to an investigation into the theory and practice of the 'gender data gap', neither has fully drawn on anticolonial feminism and the unique insights that this body of work can provide. There is also little work bringing data feminism into discussion with critical data for development work. As Leurs (2017: p.134) notes, "feminist and postcolonial scholarship and data studies remain as largely unconnected fields with little cross-fertilisation".

This literature review therefore highlights gaps in current academic research and understanding, providing justification and a rationale for this research.

2.2 Gender

The meaning of the word 'gender' is historically and culturally contingent (Richardson, 2015). In the U.S. and Europe, the concept came to the fore in the 1960s and 1970s, when alongside the rise of second-wave feminism, theorists began to demarcate 'gender' from 'sex' (Alsop et al., 2002). Prior to this point, 'sex', which is the biological category assigned to humans at birth based on their physiological characteristics, was largely considered indivisible from 'gender', or the "social meanings and value attached to being female or male in any given society, expressed in terms of the concepts of femininity and masculinity" (Richardson, 2015: p.3). This essentialist understanding of the self as rooted in a "timeless, universal biological 'essence'", that is either male or female, became increasingly challenged by social constructionist scholars, and in particular feminist theorists (ibid.: p.5). For example, French feminist philosopher Simone de Beauvoir (1972: p.295) famously remarked that "one is not born, but rather becomes, a woman", arguing that it is the sociocultural meanings ascribed to our sexual organs that shapes 'womanhood' and 'manhood', with the former being demarcated as inferior to the latter. Building on this, Ann Oakley (1972) demonstrated that 'masculinity' and 'femininity' are understood in multiple, often opposing, ways across different societies and parts of the world, and that therefore 'gender' can be considered the result of cultural

conditioning to a greater extent than biology. Later on, Judith Butler (1990) put forward the case for 'gender' being a 'performance' that is produced through everyday practices and social interactions.

For many feminist academics, demonstrating that 'gender' is a social construction, rather than a biological given, has been essential to challenging patriarchal power relations, as doing so destabilises the idea that the greater power and influence held by men in many societies across the world is due to 'natural' tendencies (Bradley, 2013). However, there are some feminist essentialists who uphold the idea of an innate 'female' essence as key to women's liberation. For example, some strands of ecofeminism have reified the connection between women and nature, and stereotypes of women as caring and nurturing, by seeking to "consciously promote women as privileged knowers of the natural world" (Foster, 2021: p.191). Social constructionist feminists have, however, taken the debate a step further by not only problematising 'gender' but also 'sex', demonstrating, for example, that there is a broad spectrum of 'sex' characteristics that vary from person to person and extend far beyond a simplistic 'man' or 'woman' binary categorisation (Clune-Taylor, 2020). Despite this extensive work to delineate 'gender' as a concept, the term is still often used colloquially or in particular settings as shorthand for 'women' or 'women's issues'. This is further discussed below in Section 2.5 'Gender and Development – Mainstream Approaches'.

2.3 Development

Like gender, development is also a much "contested …. complex and ambiguous" concept (Thomas, 2004: p.1). A plethora of development doctrines exist, and even within the divergent conceptual communities working on this topic, debate over the meaning of this term endures. Across the wide variety of conceptualisations of development, which it is far beyond the scope of this thesis to delve into in detail, there is a general agreement that "'development' encompasses continuous 'change' in a variety of aspects of human society" (Sumner and Tribe, 2008: p.11). Some conceive development to be an "immanent and unintentional process" of social change whilst others emphasise "development as an intentional activity" (Cowen and Shenton, 1996: p.50). In the latter case, which includes anything from the work of grassroots community groups and non-governmental organisations, through to the actions of private-sector companies, global multilaterals and states engaging in 'development' schemes, there is also a shared belief that, more specifically, "development means *good* change" (Chambers, 2004: iii, p.1-2, emphasis added). However, as Kanbur (2006: p.5) points out, as there are differing "values and … alternative conceptions of the good life, there is no uniform or unique answer" as to what exactly this 'good change' that development should achieve is.

Sachs (1992a: p.1) argues that development is "a perception which models reality, a myth which comforts societies, and a fantasy which unleashes passions". Yet, as Crush (1995) observes, whilst the various development 'discourses' may just be sets of ideas and beliefs, they justify material interventions into real people's lives. For this reason, Howard (1978: p.18) described development as a "slippery value word", that can be used by "noisy persuaders" to achieve their own ends. Arturo Escobar (1995: p.419), in his seminal book 'Encountering Development', remonstrates against the hegemony of the discourse of development, which, he writes, has "colonised reality" to such an extent that the ability to imagine alternative futures, say of radical change to the international economic order, is stunted.

Cowen and Shenton (1996: p.29) trace the etymology of the concept of development back to the start of the eighteenth century. When the word first came into use in the English language it was associated with the 'growth' and 'unfolding change' of industrialisation, as well as the trusteeship needed to "create order out of the social disorder of rapid urbanization, poverty and unemployment" that accompanied this shift (ibid.). During the Western colonialisation of the majority world in the nineteenth century, the belief that the colonies were 'underdeveloped' and in need of 'improvement' through imperial expansion was cemented into European thought (Cowen and Shenton, 1996; Drayton, 2000). These beliefs can be traced through to the end of the Second World War and President Truman's[5] infamous speech in which he called for a "programme of development" led by the US in "undeveloped areas" to free people from "the … poverty and tyranny" and "false philosophy of communism". Esteva (1992) writes that as Truman uttered those words two billion people became 'undeveloped'. Mainstream development in the second half of the twentieth century thus became a mission by Western governments or multi-lateral organisations such as the World Bank and IMF to industrialise, urbanise, modernise, capitalise – and, most importantly, democratise, the rest of the world. Rostow's (1960) 'Five Stages of Economic Growth' demonstrates the linear pathway this 'progress' was supposed to take.

Despite it becoming clear that this approach did little to improve the living conditions of those targeted, and the growth of counter development discourses drawing on Marxism and structuralism such as dependency theory, the prioritisation of economic growth as 'development' carried through into the neoliberal turn of the 1980s. The economic liberalisation and Structural Adjustment Policies of this era only deepened inequality. Therefore, in the 1990s the discourse of the major development actors shifted to poverty, 'rights', agency, participation, and empowerment in order to extend the gains of capital further through individual responsibility and self-help (Wilson, 2015). Even with this

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5 Harry S. Truman Inaugural Address, 20 January 1949, accessed at
http://www.trumanlibrary.org/whistlestop/50yr_archive/inagural20jan1949.html

shift in terminology, it can be argued that many of the same assumptions and ideologies present in early formations of Western-led development remain in mainstream development theory and practice, including the pursuit of 'modernity' and promotion of capitalism.

2.4 ICT4D

Over the last 20 years, the popularity of the concept of ICT4D (Information Communication Technology for Development) has grown within the development industry. Motivated by the supposition that "ICTs as tools … help alleviate poverty and improve communities' wellbeing" (Acacia, 2003) and that lower-income countries are "deprived of the opportunities for economic growth and life improvement … because of the scarcity of IT" (Avgerou, 2003: p.374), development agencies, such as the World Bank, UNDP and USAID are increasingly investing in technology related projects, including education focused initiatives, in order to overcome the so-called 'digital divide', and socioeconomic division, between countries (Maier and Nair-Reichert, 2007). Yet despite the "assumed unidirectional relationship between ICTs and Development", in practice the developmental contribution is not always clear (Sreekumar and Sanchez, 2008: p.160). Kleine and Unwin (2009) argue that ICT4D naively replays the modernisation and technodeterminism records popular in earlier forms of international development, such as the Green Revolution of the 1970s. Murphy and Carmody (2015) who reviewed ICT adoption in Tanzania and South Africa, note that the ICT4D discourse perpetuates the simplistic Eurocentric belief that lower-income nations can 'catch up' higher-income nations regardless of structural constraints such as exploitative global trade arrangements. This is despite the fact that, as Raiti (2006: p.4) points out, placing "devices in the hands of as many potential consumers as possible" brings greater benefits to powerful corporations and stakeholders than it does to the marginalised.

2.5 Gender and Development: Mainstream Approaches

Gender was not considered in Big 'D' intentional 'D'evelopment interventions by the West into the rest of the world until the 1970s. Esther Boserup's (1970) pioneering book 'Women's Role in Economic Development' marked the turning point whereby women were noted as being differently affected by modernisation processes than men. Up until then a welfare approach to women's needs had been adopted by Western development agencies, which addressed women's 'natural' role as wives and mothers but not their role as workers (Momsen, 2004). This was despite the fact that in the context of Sub-Saharan Africa, for example, women played a central cultivation role in farming systems (Wilson, 2015). It was assumed that the goods from industrial labour would 'trickle down' to women via their husbands (Momsen, 2004). As a result, interventions such as the introduction of

cash crops or new agricultural technologies were targeted towards men only. Boserup demonstrated that women were in fact worse off than they were before male labour-oriented industrialisation as a result of this oversight. With this the WID (Women In Development) approach was born, in order to literally incorporate women into economic processes of production through education, training and access to technology (de Waal, 2006: p. 210). Small-scale income generating schemes, such as handicraft manufacturing, were common examples of WID in practice.

It could be argued that the present day ICT4D discourse perpetuates the WID approach. With the growing awareness that the simplistic binary notion of nations that are digital 'haves' and 'have nots' may actually obscure the ways in which gender intersects with global status to exacerbate the 'digital divide' in contextually specific ways (Steeves and Kwami, 2012), ICT4D projects have been increasingly targeted towards women. The oft-cited GSMA (2015) 'Bridging the Gender Gap' report states that, globally, women are 14% less likely than men to use a mobile phone. In South Asia, this figure rises to 38%. Programmes seeking to address this 'gap' include the Cordio project in Kenya which supplied women's self-help groups with laptops and training towards sustainable livelihoods (Wamala, 2012). Women for Empowerment and Entrepreneurship (W2E2) in rural India also gives women access to digital tools and Internet connectivity6. Harding (1995: p.298) referred to this type of approach to the issue of women's exclusion from technology as the "just add women and stir" tactic.

In time the WID approach received significant criticism. Wilson (2015), drawing on Kabeer (1994) argues that the contention fell into two main categories. Firstly, WID was criticised for its basis in neoliberal economics, which conflates 'progress' with economic growth driven by rational individuals acting out of free choice to maximise their utility in pursuit of private property on the free market (ibid.). For some this embrace of markets negates the ways in which women's subordination is integral to capitalism, whilst for others the emphasis on individual rationality begets the ways that "a broad range of social division and social relations … constrain women's economic choices and opportunities" (Razavi and Miller, 1995: p.6). Secondly, the WID perspective was condemned for upholding the assumptions of liberal feminism. In particular, critics have taken issue with the notion that women's liberation lies in their advancement in the public sphere, without also dismantling patriarchy and unequal gender relations at home, whilst neglecting the need to understand how gendered power structures intersect with class, race and imperialist domination (Razavi and Miller, 1995; Wilson, 2015).

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6 www.w2e2.org

The Gender and Development – or GAD approach – emerged out of the critiques of the primacy of the productive sphere and the essentialising of womanhood that WID entailed. GAD "centers on the power relations between women and men … rather than women alone" (Plewes and Steurt, 1991: p.127). In analysing how the social constructions of 'masculinity' and 'femininity' position men more powerfully than women in the workplace, home and wider community, the GAD approach seeks to address the root cause of observable gender inequalities, as well as how race, class and (dis)ability intersect to amplify sex-based disadvantage, and thus create long-lasting societal equality through a more even distribution of power (Moser, 1993: p.3). GAD, unlike WID, recognises that simply bringing women into the capital accumulation process will not resolve the gendered division of labour in the home. Instead, this can act as a double burden for women (Wilson, 2015). Yet rather than treating women as one homogenous category, GAD theorists have engaged in regional and anthropological studies that demonstrate the diversity of gendered labour processes and household structures which result in varying degrees of autonomy and control for women (Kabeer, 1994; Chant, 2007).

Taking a GAD approach to the issue of digital technologies for development requires far more than simply calculating the proportion of female mobile phone owners, or the number of women engaging with online services and content. Instead what is needed is an intersectional "power analysis of the political, social and economic systems within which these technologies sit" (O'Donnell and Sweetman, 2018: p.218). For example, technologies are not created in a vacuum. Technology and digital content creation continues to be male dominated. Therefore, ICT itself is gendered, rather than a neutral tool. Digital technology has the potential to transform gender relations for the better in the form of a tool that can support women's 'effective' agency (Hussain and Amin, 2018; Kabeer, 2005; Zelezny-Green, 2018). The online world also offers space and opportunity to further feminist activism (Titus, 2018). As technologies proliferate this can shift what it means to be 'female', sometimes enhancing women's 'empowerment' by giving them more power than before, but also what it means to be 'male' in specific contexts. An example that relates to digital technology is Shannon Philip's (2018) study of how the rise in mobile phone ownership and social media usage amongst middle-class young people in India is challenging traditional gender norms around sexual and romantic relationships by providing young women, in particular, with the means to pursue intimacy beyond the confines of their usual social networks. However, on the other hand, digital technology also has the potential to reinforce unequal gender relations. The high rates of online gender-based violence are testament to this (Gurman et al., 2018; Thakur, 2018). 'Doing' gender transformative ICT4D in practice, therefore, requires addressing the fact that some genders, ethnicities, races, ages, social classes, geographical locations and abilities dominate over others. This is not an easy task.

Despite the promise of GAD, the challenges of making GAD a reality in practice has meant that much Gender and Development work continues to focus on women in a WID-like, instrumentalist, 'add on' style, rather than promoting the protracted, difficult and conflict-ridden process of deconstructing powerful intersectional gender hierarchies. ICT4D projects supposedly taking a 'gender' approach are no exception, with many reducing 'gender' to 'women' and simplistically assuming that giving women access to, and/or training in, ICTs is the key to transforming gender relations, rather than the other way around. The historical legacy of 'WID' approaches (Chant and Gutmann, 2000), the existence of patriarchal values in development agencies (Kaufman, 2003: p.3) and the practical difficulties inherent in pursuing such a fine-grained, slow-moving social change agenda are all reasons why GAD may have failed to live up to its promise. Indeed, Wilson (2015) notes that in the last fifteen years the gender-related international development pursued by states and major bodies such as the World Bank has shifted to a much more explicitly neoliberal approach that the World Bank (2006; 2011) terms "Gender Equality as Smart Economics". This approach is based on the belief that women work harder and better invest their money than men, making them the untapped key to economic prosperity. The "emergence of the hyper-industrious entrepreneurial 'girl' from a low-income household in the global South as the central trope of twenty-first century neoliberalism" erases questions of structural injustice (Wilson, 2015: p.809). With the right microfinance, reproductive health, education or digital technology projects, this discourse purports that women in the majority world will lift themselves, and their countries, out of poverty, regardless of the fact that capitalism perpetuates inequality rather than absolving it.

2.6 Post-development and anti-colonial critiques of development

As the struggle for realising a gender transformative version of development continues, the over all project of 'development' itself has been declared by many to be "a blunder of planetary proportions" (Sachs, 1992a: p.3) and a "huge, irresponsible experiment that, in the experience of the world majority, failed miserably" (Esteva, 1985: p.78). The critics of development belong to many different camps, but two of the most influential bodies of development critique are post-development and anti-colonialism, the latter of which includes both post-colonial and decolonial work.

Post-development theory, described by Pieterse (2010: p.175) as a "radical reaction to the dilemmas of development" emerged from the dissatisfaction with development rhetoric and practice and disillusion with the prospects of 'alternative' development. The Development Dictionary (Sachs, 1992), which contains the work of 17 different scholars, can be considered the first major post-development work, although this perspective is inspired by the works of previous theorists such as

Foucault and Gandhi. They took issue, amongst other things, with the ecological fallout of industrial Western-led 'development' which rendered it unsustainable and impossible to achieve across the world, as well as the fact that development had widened, rather than narrowed, the gap between rich and poor countries (Ziai, 2007). Proponents of post-development, such as Rahnema (1997: p.384) accordingly argue that development is "an ideology that was born and refined in the North, mainly to meet the needs of the dominant powers in search of a more 'appropriate' tool for their economic and geopolitical expansion". Post-development theorists, such as Esteva (1992: p.21), instead put their faith in alternatives to development, including the belief that ordinary men and women suffering from the exclusionary process of Western 'development' will independently forge "their own definition of needs" and "autonomous ways of living", reclaiming the commons and traditional ways of living. Esteva (1999), for example, collaborated with the Zapatistas and other indigenous social movements in Mexico, whilst Escobar (2008) worked with the Proceso de Comunidades Negras in Colombia.

Technology for development and ICT4D has, in general, not drawn from post-development perspectives. Indeed, it can be argued that the field of ICT4D is characterised by an "unbearable lightness" (Pieterse, 2010: p.305) and failure to engage with critical theoretical perspectives, often pursuing techno-rationalist logic of an "assumed … unidirectional relationship between ICTs and Development" (Sreekumar and Sanchez, 2008: p.160). It is for this reason that Kleine and Unwin (2009: p.1050) have argued that those working in this area need to "confront the moral and political agendas associated with 'development'" by focusing in on the '4' in ICT4D, which they say forces us "to make explicit what we mean by 'development'". De ́ et al. (2018: p.71) argue that Escobar's post-development "core ideas are important for critical ICT4D research" in particular. They draw upon his emphasis of the need for a historical perspective or 'provenience', as well as the need to assess the influence of the neoliberal Washington Consensus, as key parts of a framework for strong critical research in ICT4D (ibid.). Escobar's work has played a central role in the work of other critical ICT4D scholars too (Faik and Walsham, 2013; Hayes and Westrup, 2017; Qureshi, 2013; Walsham et al., 2007). Yet Avgerou (2010) notes that whilst progress is being made to move away from the simplistic certainty that ICTs unproblematically lead to 'development', and that 'development' means economic growth alone, in general ICT4D work till does not situate its claims that technology either 'disrupts' or 'progresses' 'development' within critical trajectories such as post-development, and thus the arguments made by the field lack strength over all.

Post-development is not without its critics either, however. Corbridge (1998: p.144) points out that post-development generalises development as an all out failure without recognising significant achievements such as the global reduction in child mortality. Pieterse (1998: p.363) argues that this

is a methodological weakness in post-development theory, as it relies upon discourse analysis that only identifies 'development' as a monolithic discourse rather than recognise the differences and discontinuities within it in a Foucauldian manner. Kiely (1999: p.44) argues against the 'noble savages' idealisation of minority groups by post-development, which belies the fact that many are in favour of 'development' – albeit participatory and grassroots progress over the Western, top-down variety. The lack of consultation of indigenous and majority world people themselves leads Knippenberg and Schuurman (1994: p.95) to accuse post-development of paternalism. Nanda (1999: p.11) further points out that this romanticisation of people in the majority world also closes off the possibility of 'critique from the outside', despite the fact that inequality and oppression exist within more traditional societies too. Lastly, Pieterse (2000: p.180) argues that post-development can seem all "critique but no construction". Ziai (2017: p.2549) terms this manner in which post-development studies washes its hands of political action apart from notionally supporting social movements in the South from a distance as "Pontius Pilate politics".

Anti-colonial theories have been at the forefront of the critiques of mainstream development alongside post-development, and address some of the complaints garnered by the latter. The two main bodies of anti-colonial theory are 'post-colonialism' and 'decolonialism'. The field of post-colonial theory emerged in the late 1970s following the publication of Palestinian-American critic Edward Said's 'Orientalism', and was further developed by largely South Asian scholars who had trained or worked in former colonising countries (such as the US and UK), known as the Subaltern Studies collective (Ruíz, 2021: p.543). Postcolonialism examines the historical legacy of development "as it emerged out of colonial institutions and practices" and "the processes by which inequality is often reproduced in contemporary development practices" (Noxolo, 2016: p.45). Prominent postcolonial theorists such as Said (1978), Bhabha (1994) and Spivak (1988) have emphasised the role of colonial discourse and language rather than the tangible, leading some to characterise the field as "critiques of the production of knowledge about the Other" (Williams and Chrisman, 1994: p.8). Postcolonial development theorists have therefore highlighted the ways in which development discourse, including the labelling of certain areas as "underdeveloped" and belonging to the "Third World" in comparison to naming the West as "developed" and the "First World" creates a powerful linguistic hierarchy that has real material consequences (Kapoor, 2004: p.636; Power, 2003: p.66-7; Spivak, 2003: p.622). As well as spearheading the "contestation of colonial domination and the legacies of colonialism" (Loomba, 1998: p.12), postcolonial theorists also seek to bring about a "conceptual reorientation towards the perspectives of knowledges, as well as needs, developed outside the west' (Young, 2003: p.6). It can be argued that in comparison to the romanticising of the pre-colonial indigenous past that characterises a significant proportion of post-development

writing, postcolonialism emphasises the complexity of pre-colonial societies, including the non-paradisiacal aspects of them (Noxolo, 2016).

Postcolonial theory has much in common with decolonial theory. Decolonial theory became prominent following the publication of Peruvian sociologist Aníbal Quijano's (2000a) article 'Coloniality of Power, Eurocentrism and Latin America' (Ruíz, 2021: p.543). In his work, which is based on extensive observation of Latin America since the 1970s, Quijano (2000b: p.342) describes how "the imposition of a racial/ethnic classification on the world's population" naturalised relations of domination during the colonising of the Americas, which continues to this day as "a constituent and a specific element of the pattern of capitalist power". Ruíz (2021: p.543) argues that decolonial theory and postcolonial theory are harmonious with one another, as they both "share the view that colonialism did not end with … the withdrawal of occupying powers" and "embrace the stronger thesis that beyond the lingering effects of historical colonialism, active forms of colonial domination continue to operate in society at various levels of transparency". However, they add that whilst postcolonialism "historically focused on the task of identifying cultural biases and lacunas in history, recovering subaltern histories and writing histories 'from below'", decolonialism "sought to displace the mechanisms that, in their view, created and maintained subalternity in the first place" (ibid.: p.545). For example, in Mignolo and Walsh's (2018) book 'On decoloniality', they describe decoloniality as a 'praxis of living' (p.7), an "ongoing serpentine movement toward possibilities of other modes of being, thinking, knowing, sensing and living", and a "delinking from CMP [the colonial matrix of power" (p.81).

As a result of this emphasis on political action, decolonial approaches have avoided some of the charges levied against postcolonialism, which has been lambasted by some for using inaccessible and "obfuscating" language (McEwan, 2003: p.346), being depolitical, and for "encouraging a rarefied approach to culture and literature" (Loomba, 1998: p.1). Some majority world critics argue that postcolonialism is too Eurocentric in taking colonialism "as the central defining referent", and that this hinders the ability of the perspective to "account for the complexities of globalisation" (Loomba, 1998: p.1). For development practitioners the prioritisation of language and discourse over materiality is the key failing of postcolonialism; "development studies does not tend to listen to subalterns and postcolonial studies does not tend to concern itself with whether the subaltern is eating" (Sylvester, 1999: p. 703). This could partly explain why postcolonial theory is not often drawn upon by those working within ICT4D. However, it is more likely due to the aforementioned point that has also seen post-development little often included in ICT4D discourse – the lack of engagement with critical theory in ICT4D, which Raiti (2006: p.1) argues is "overly optimistic, highly Western ... atheoretical" and "fails to draw extensively on a breadth of research in other fields".

Despite some concerns, McEwan (2009: p.105-106) states that postcolonialism is a "more constructive" approach than post-development, as rather than insisting on the "outright rejection of development" postcolonialism suggests "that it is impossible to stand outside of dominant discourses such as development and instead there is a need to change the discourses from within". Ming Dong Gu (2020: p.598) further notes that whilst scholars intent on decoloniality might be more concerned with constructing a transformative future than looking at the past, it must not be forgotten that as "coloniality is the material, intellectual, emotional and spiritual condition shaped by the consequences of colonisation", it is impossible to bring decoloniality to fruition without paying at least some attention to the colonial. Therefore, as Delnevo (2017: p.16) argues, it makes sense to take an overarching anti-colonial approach, which employs "postcolonial methods towards decolonial ends". An example of this is the work by anti-colonial development critics which draws on post-colonial theoretical insights to advocate for decolonial "alternative formulations such as 'indigenous' and 'alternative' modernities … and rights-based approaches" to development which decentre the idea that rights should be individual, rather than collective, and that modernity should mean 'Western' homogeneity (Simon, 2006: p.13). In the context of ICT4D, Kreps and Bass (2019: p.1) have, for example, put forward Southern Theory as "a route by which researchers in the global South can reclaim the intellectual territory of ICT4D, with indigenous and regional research paradigms and theories rather than those simply absorbed from the global North". They argue, for example, that taking a Southern Theory approach to cloud computing in Sub-Saharan Africa would involve supporting emerging cloud start-ups led by Ghanaian and Nigerian entrepreneurs, rather than importing the cloud services of Western companies such as Microsoft in the name of 'modernisation' and 'development'. Elsewhere Jiménez and Roberts (2019: p.180) "use the lens of Buen Vivir (living well) from Andean and Amazonian communities in South America" to reimagine innovation hubs and demonstrate how "epistemologies of the South might inform innovation processes to produce different outcomes".

2.7 Feminist anti-colonial critiques of (gender and) development

Despite their significant contributions to development thinking, postcolonial and decolonial perspectives have received critique from feminist theorists for ignoring the importance of gender. This has led to the formation of feminist anti-colonial theories, including feminist postcolonialism and decolonial feminism. Feminist postcolonial theory "exerts a pressure on mainstream postcolonial theory … to consider gender issues" (Lewis and Mills, 2003: p.2). Acclaimed postcolonial works, such as Said's (1978) Orientalism and Hyam's (1990) Empire and Sexuality, have often focused on male perspectives and writings, leaving gendered power relations untouched.

Accordingly, much feminist postcolonial work has sought to make clear the ways in which "gender and sexuality are necessarily imbricated in colonialism and its legacies" (Chambers and Watkins, 2012: p.297). For some postcolonial feminists this has meant bringing women's colonial experiences to the fore (Chaudhuri and Strobel, 1992, Jayawardena, 1995). Others have deconstructed the ways in which notions of femininity and masculinity in the colonial era affected, and were affected by, imperialism (McClintock, 1995: p.23; Sinha, 1995; Stoler, 2002: p.6).

As well as extending postcolonial studies, feminist postcolonial theorists have also provided a welcome rejoinder to the solipsistic limitations of Western liberal feminism. They have drawn on the work of Black and Chicana feminist theorists (including the Combahee River Collective, 1978; Lorde, 1979; Hull, 1982; Moranga and Anzaldua, 1983; Smith, 1983), who critiqued the ways in which the Anglo-American feminist movement's proclamations that 'sisterhood is global' negated the ways in which racism intersects with gendered oppression (Lewis and Mills, 2003). Postcolonial feminist Gayatri Chakravorty Spivak (1985: p. 243), for example, has railed against the ways in which "feminist criticism reproduces the axioms of imperialism" through upholding the notion of a transhistorical, singular 'womanhood'. Chandra Talpade Mohanty (1984: p.353) similarly takes issue with the way in which the false illusion that all "first world" women are "secular, liberated, and hav[e] control over their own lives" is made possible by being juxtaposed with the universal mirage of the oppressed and vulnerable "third world woman" in some Western feminist texts.

Along similar lines, decolonial feminism emerged to challenge the domination of the decolonial canon by heterosexual cis-men, such as Aníbal Quijano, Walter Mignolo, Enrique Dussel, and Nelson Maldonado-Torres (Velez and Tuana, 2020). The term 'decolonial feminism' stems from two essays written by Maria Lugones in 2007 and 2010. In the former piece, Lugones (2007: p.186) builds on Anibal Quijano's theory of the coloniality of power and situates it within an intersectionalist feminist framework in order to argue that gender itself is "a colonial concept and mode of organization of relations of production, property relations, of cosmologies and ways of knowing". Oyěwùmí (1997), for example, notes that in Yoruba (and other) indigenous societies, seniority was the key organising principle and sex differences were understood as no more than anatomical differentiation until colonisation when the notion of male and female as distinct, hierarchical social categories was introduced. In her latter essay, Lugones (2010: p.747) states that "the possibility of overcoming the coloniality of gender" is "decolonial feminism". Whereas postcolonial and feminist postcolonial theory have focused "primarily on the discursive and cultural effects of colonialism", decolonial feminism, and decolonial theory more generally, is often viewed as "more radical" as it "calls for epistemic decolonization and delinking from capitalist modernity/coloniality" (Allen, 2021: n.p).

In critical feminist development writing both postcolonial and decolonial feminist ideas have been hugely influential. For example, postcolonial feminist theories about representation have led scholars such as Kothari (2002: p.48) to note the ways in which development studies is "replete with texts that present as homogenous diverse groups of people and practices, such as books on … gender relations in Sub-Saharan Africa". Representation is an issue not just of what is 'said' about 'Others' but also who is doing the 'saying'. Syed and Ali (2011) argue that present-day gender and development research and projects are the continuation of the colonial trope of the 'white woman's burden', in which white Western feminists play the role of expert and 'saviour' to the majority world female 'victim', whilst ignoring indigenous women's subject position and sense of agency. In Abu-Lughod's (2002: p.789) words, "projects of saving other women depend on and reinforce a sense of superiority by Westerners, a form of arrogance that deserves to be challenged". After all, as Trinh (1989) notes, the power that women in the West have to study and intervene in the majority world is not often possible the other way around. Sardar (1999) agrees that it is in the ability to define, represent and theorise about the majority world that neocolonial power truly lies.

In line with the decolonial feminist emphasis on transformative action, feminist anticolonial development thinkers have sought to find other ways of knowing and being beyond Eurocentric narratives, for example through making space for majority world women to speak and represent themselves, so that the "material complexity, reality and agency of Third World women's bodies and lives" can be re-established (Mohanty, 2003: p.510). For some, such as Miles and Crush (1993: p.84), this has meant trying out life histories and methodologies "as a way of recovering hidden histories, contesting academic androcentrism, and reinstating the marginalised and disposed as makers of their own past". Anticolonial feminist scholars have also tried to develop new ways to "'speak with' rather than 'to' or 'for' the people with whom one is engaged in research", partly contributing to the rise in popularity of participatory development approaches (McEwan, 2001: p.102).

Some, however, have taken issue with postcolonial and decolonial feminisms. Jackson (1997: p.147), for example, argues that postcolonial feminism renders the tangible struggle of poverty and "materiality … of questionable status" in comparison to "culture, ideas and symbols". Furthermore, some have argued that decolonial feminism, despite being intent on radical praxis, is hypocritical in that it continues to largely operate in knowledge production from an elitist academic position rather than from within social movements in which women play a central role (Curiel, 2007: p.100). As Julieta Paredes (2014: n.p.) writes, "there is no decolonial or postcolonial theory that enlightens decolonisation because you cannot decolonise from academia or from theory". However, for Asher and Ramamurthy (2020: p.546) it is in bringing postcolonial and decolonial feminisms, "two

different related modes of thought" together that these supposed shortcomings and apparent impasse can be overcome. They note that the dualistic framing of these two anticolonial feminisms, in which postcolonial feminism is understood as deconstructive and focused on the past and imperialism, emergent from Asia and the middle East, and "uncritically grounded in Western philosophy", in comparison to the constructive, Americas-based, future-focused, colonialism beyond imperialism, and non-Eurocentric philosophy oriented decolonial feminism, is rooted in Western binary thinking itself. Instead, like Giraldo (2016: p.160), they advocate for "border thinking" that draws from postcolonial feminist "concern with culture and the question of representation" alongside a decolonial feminist hopeful commitment to being "politically engaged" (p.162).

Just as postcolonial and decolonial approaches have made little headway in the ICT4D world, feminist anti-colonial approaches, and in particular those that blend both postcolonial and decolonial feminist insight, have made even less. Theories of technology diffusion and innovation, developed in relation to technological growth in western countries, have dominated the field (Xiao et al., 2013), despite the growing recognition that "issues of power, politics, donor dependencies, institutional arrangements, and inequities of all sorts" characterise ICT4D (Walsham and Sahay, 2006: p.19). However, following Asiedu's observation that postcolonial feminists "offer important ideas to address gender and ICT issues facing the global south" (2012: p.1200), a number of papers drawing on postcolonial feminist ideas in order to critically analyse ICT4D have been published, including work assessing the (dis)empowering effects of mobile maternal health interventions in Ghana and India (Al Dahdah, 2017), the gendering of gaming spaces and practices in Community Technology Centers in favelas in Brazil (Nemer and Gray, 2019), and the strategic negotiation of agency through ICTs by female street traders in urban Uganda and female participants in community radio in rural India (Masika and Bailur, 2015). In a more decolonial feminist vein, Karelse and Sylla (2000) have argued that ICTs discredit and subordinate indigenous knowledge and practices, which is often produced by women. Along these lines, Narayanaswamy (2016) critically examined the Knowledge for Development (K4D) paradigm in India, including the way that the discourse constructs women in the majority world as possessing a 'knowledge deficit' that requires training and access to ICTS led by Northern-based development experts. Drawing on postcolonial feminist Gayatri Spivak's insights about language, but maintaining the decolonial feminist emphasis on praxis, De' et al. (2018) advocate for ICT4D projects that use local languages rather than English, which remains the dominant language of operation in ICT for development programmes. Despite this promising recent work there remains a large scope for new work on ICTs and development that draws upon the wider anti-colonial feminist canon, incorporating both postcolonial and decolonial

perspectives. For example, the next section explores one area of ICT4D ripe for anti-colonial feminist analysis – the upsurge in 'gender data for development'.

2.8 Data for Development - The Gender Data Gap

> Powerful international development institutions have called for a 'gender data revolution.' They posit that progress on gender equality depends upon our collective ability to close 'the gender data gap,' by which they mean that we know less about women's lives than men's in statistical terms (Fuentes and Cookson, 2020: p.881)

An emerging area within ICT4D yet to be studied from an anti-colonial feminist perspective is the rise of gender data for development. 'Data' in this context refers to digital information that can be processed or stored by a computer. The hype around gender data can be contextualised as being one facet of a "wider enthusiasm for big data 'solutions'" in international development (Lyon, 2014: p.6). High profile examples of this include UN Global Pulse, the UN's big data and AI for development initiative (Taylor and Broeders, 2015), and the datafication of social protection in India through Aadhar, the government's biometric identification programme (Masiero and Das, 2019). Heeks and Shekhar (2019: p.993) argue that whilst data has always played an integral role in development policy and practice, the rapid acceleration and diffusion of digital technologies has vastly opened up "new forms and streams of data in decision making".

One of the 'new forms' of data that has particularly captured the imagination of development organisations is 'gender data', which includes not only digital information on gender (in)equality, but more often than not also refers to material on women and girls' lives in the majority world generally. However, it is the lack of available and accurate 'gender data', rather than its ubiquity, that has led this particular variety of digital information to become a key development priority. In 2012 the U.S. Department of State and Gallup co-hosted an event entitled 'Evidence and Impact: Closing the Gender Data Gap'. This event can be argued to mark the moment whereby 'closing the gender data gap' became a key priority for mainstream development actors. During the session, the World Bank Group President Jim Yong Kim (in Barne, 2012) launched the World Bank's Gender Data site, a repository of sex-disaggregated data on health, education and so on, stating that "the lack of gender-disaggregated data hampers development efforts in many countries". The then U.S. Secretary of State Hilary Clinton also announced another new venture - Data 2X - a gender data partnership coordinated by the UN Foundation that develops and disseminates gender-sensitive data practices. In her speech at the event, Secretary Clinton (in Barne, 2012) stated that:

> If we're serious about narrowing the gender gap and helping more girls and women, then we must get serious about gathering and analyzing the data that tell the tale

Since this event, numerous other behemoths in the international development space have committed to addressing the lack of rigorous data on women's lives in the majority world. For example, in 2016 the NGO Plan International published a report entitled 'Counting the Invisible: Using Data to Transform the Lives of Girls and Women by 2030'. In the same year, at the Women Deliver conference, Melinda French Gates (2016a) announced that the Gates Foundation would be committing $80 million towards closing the data gap on gender. In 2017, Equal Measures 2030 was initiated - an independent civil society and private sector-led partnership - which seeks to make gender data and data-driven advocacy skills available to feminist organisations, movements, advocates and decision-makers. Some of the partners involved in Equal Measures 2030 include ARROW, Data2X, Femnet, the Bill and Melinda Gates Foundation, IWHC, KPMG, ONE, Plan International and Women Deliver. In 2019 the partnership launched the SDG Gender Index, hosted on the Gender Advocates Data Hub, which measures the state of gender equality aligned to the SDGs. UN Women launched the interactive Women Count Data Hub later that year. These examples demonstrate the upsurge of interest and investment in 'closing the gender data gap' from a wide range of actors across the international development sphere, from corporations and philanthropists to NGOs and advocacy organisations.

In Melinda French Gates' (2016a) speech at Women Deliver 2016, she remarked that:

> By adopting the SDGs, the world agreed to achieve gender equality by 2030. But **we cannot close the gender gap without first closing the data gap**. We simply don't know enough about the barriers holding women and girls back, nor do we have sufficient information to track progress against the promises made to women and girls. We are committed to changing that by investing in better data, policies, and accountability

As this quote demonstrates, the central supposition underpinning the gender data for development trend is that if gaps of data on women's lives in the majority world are closed, then this will lead to the closing of the persistent gaps in equality between men and women. The reasoning behind this belief that 'closing the gender data gap' will close the 'gender gap' is that if they are armed with accurate information about women's needs, development organisations will be able to formulate more effective policies and programmes (Data2X, 2017). Furthermore, as the UN (2018: p.1) argues, "gaps in gender data and the lack of trend data make it difficult to monitor progress for women and

girls", including how successful development interventions are being in advancing gender equality. Therefore, the 'gender data gap' rationale is that more and better gender data will not only assist in the creation of more beneficial development projects, but also in the more accurate evaluation of these initiatives.

In particular, there are concerns that achieving the UN Sustainable Development Goals (SDGs) will be hindered by the gender data gap, as there is incomplete data for many of the indicators for SDG 5 – 'achieve gender equality and empower all women and girls'. Data2x found, for example, that whilst 80% of countries regularly produce sex-disaggregated statistics on mortality, labour force participation, and education and training, less than a third of countries disaggregate statistics by sex on informal employment, entrepreneurship (ownership and management of a firm or business), violence against women, and unpaid work (Buvinic et al., 2014). Yet it is important to note that development organisations have been concerned with 'measuring' and tracking progress, particularly on gender equality, for many years prior to the invention of the SDGs. Liebowitz and Zwingel (2014: p.362) refer to this as a "measurement obsession", which since 1995 when the UNDP launched the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM), has seen the creation of multiple 'gender-related indices' in response to increased demand that development programming be 'evidence-based' (Bradshaw et al., 2017; Buchanan et al., 2018; Buss, 2015; Fuentes and Cookson, 2020).

Yet whilst the drive to "measure the world" (Merry, 2011: p.S83) is therefore not a new phenomenon, many of the technologies now being deployed in the service of this aim are. Much faith has been put in 'big data' technologies, which include the personal digital technologies such as smartphones that are rapidly producing vast varieties of user-generated information, and the software tools that extract, analyse and process these immense data sets, as the answer to the gender data 'problem'. The UN (2018: p.2) in their report 'Gender Equality and Big Data', for example, argue that big data provides "more detailed, timely, and relevant … new information on mobility, social interactions; sentiment and cultural beliefs, and economic activity". Examples of 'big data' technologies being leveraged in pursuit of gender and development goals include Fatehkia et al.'s (2018) use of Facebook ad data to track the gap in usage of digital technologies between men and women globally, the use of natural language processing by the Oxford Internet Institute to analyse women's reports of sexism on the everyday sexism website, or the use of financial transaction data in Mexico by UN Global Pulse and BBVA to measure women and men's economic resilience to natural disasters (UN Women, 2018: p.19). Temim and Roca (2016) argue that 'new technologies' such as these will help bypass slow data collection methods and close gender data gaps more quickly and on a larger scale than has been possible before.

Another project seeking to leverage 'new technologies' to close the gender data gap, albeit in a wholly different manner, is Girl Effect's TEGA (Technology Enabled Girl Ambassador) project. As mentioned in the Introduction Chapter (Section 1.2) TEGA trains cohorts of majority world girls to become digital data collectors. They are taught how to use a smartphone-based research application to conduct interviews and surveys on development-related topics within their local communities. Taking inspiration from Snapchat, when the collected data is sent to the 'content hub', a cloud-based central storage facility, any trace is wiped from the young women's phones. Encryption techniques, similar to those utilised in banking apps, ensure data security, and each file is broken down into thousands of pieces before being reassembled in the 'content hub', meaning that they can be transferred even when Internet connectivity is low. The data generated helps Girl Effect, and their partner organisations, to better target their interventions around girls' needs, and the TEGAs receive an educational qualification and payment for their efforts. In line with the 'gender data gap' discourse perpetuated by the mainstream development actors discussed above, Girl Effect's TEGA project homepage states that:

> to create meaningful change for girls we need to close the global gender data gap

Yet despite the numerous digital 'gender data' projects that have emerged over the last decade, including TEGA, and the significant amount of funding they have received, the gender data gap in development and efforts to surmount it with digital technologies has received scant scholarly attention. There have been a handful of discursive analyses of the gender data phenomenon. One of these is Fuentes and Cookson's (2020: p.883) paper, in which they argue that the "gender data revolution" recently called for from the UN and Clinton and Gates Foundations will fall short of its "radical promise" of "eradicating gender inequalities and injustices" due to its focus on quantitative, aspatial data that "*dislocates* women's experiences from space and time". Without combining this 'thinner' statistical data with the less easily quantifiable "'thicker' every day realities' of women on the frontlines of poverty and violence", as feminist scholars have long advocated, the complex reality of women's experiences and needs will be oversimplified and obscured (ibid.: p.890). The other example is Delnevo's (2017: p.IV) Master's thesis, which draws on "postcolonial and decolonial thought and feminisms" to analyse the Bill & Melinda Gates Foundation's gender data discourse and demonstrate how it "continues a colonial history of counting, classifying, and governing Others". However, despite the contributions of these two studies there is little other literature available that examines the 'gender data' gap project in international development.

This omission is observable across the wider data for development spectrum, with Heeks and Shekhar observing that (2019: p.992) perhaps "because of the novelty of the phenomenon" of data for development "there have been relatively few analyses to date of real-world initiatives, and the field is still assessing analytical approaches to use". In particular, there are a lack of empirical studies examining projects seeking to close the 'gender data gap' in the majority world, and how exactly the gathering of 'new' data on women and girls' lives leads to the transformation of gendered power relations. As with other widely used, yet vague, development concepts, such as 'empowerment', the very lack of clarity surrounding the 'gender data gap' plays into the hands of the powerful, as it can obscure 'business as usual' whilst eliding techno-progressive novelty (Batliwala, 2007; Leder et al., 2017). This thesis seeks to address this gap through conducting an anticolonial feminist investigation into Girl Effect's TEGA project in Bangladesh.

2.9 Critical Data Studies

Despite the lack of studies exploring the 'gender data gap' project in development, there is a growing body of related work that can be drawn upon to deepen our understanding of 'data'. This field of 'critical data studies', first articulated by Dalton and Thatcher in 2014, has expanded rapidly in recent years. Critical data scholars recognise that "data are a form of power" (Iliadis and Russo, 2016: p.1). Whilst the term first entered the English language in the 17th century, over the past 50 years the volume, velocity, variety and usage of 'data' has grown exponentially (Kitchin and Lauriault, 2014). It is the "capacity to search, aggregate, and cross-reference large data sets", to identify patterns, make claims and then act upon them, that defines this 'big data' era, rather than the sheer quantity of data alone (boyd and Crawford, 2012: p.663). However, the large data sets in question belong to a privileged few, such as tech giants Facebook and Amazon. Manovich (2011: p.470) argues that there are three classes of people "those who create data (both consciously and by leaving digital footprints), those who have the means to collect it, and those who have expertise to analyze it". The latter is the smallest, yet most powerful, group who get to define which data matter, and why. The widely held belief that quantitative data is an 'natural' resource waiting to be 'mined' for objective insights further strengthens the legitimacy of the claims made by this 'data elite'. Yet "raw data is an oxymoron" (Gitelman et al., 2013: p.1) – from determining what should be measured, to designing the algorithms that will collect and process data, to deciding how to communicate the findings, 'data' is rendered highly subjective.

As the enthusiasm, and investment, in data for development (D4D) projects amongst mainstream development actors has ramped up in the last few years, critical data scholars have cast a much-needed sceptical eye upon proceedings. Taylor and Broeders (2015), for example, argue that the

datafication of development has led to corporations becoming powerful development actors as commercially generated big data has been heralded as the solution to, and even replacement of, incomplete governmental data and statistics. This shift has reinforced "existing power and knowledge asymmetries", giving companies justification for searching for new markets in the name of 'development', producing data that is likely skewed by particular business strategies and excludes local knowledge and expertise (ibid.: p.233). Heeks and Shekhar (2019) also found in their investigation of data for development projects that it was the external actors with adequate data analysis resources that profited from the interventions more than the citizens who gave their data to the various schemes. Mann (2017) contends that more efforts are needed to build capacity and provide alternative livelihood opportunities for citizens from lower-income countries so that they themselves can benefit from their own data, rather than the continued extraction of data for 'expert' analysis in the West.

The process through which the everyday life of the many, once datafied, becomes a source of "big money and big power" for the few through "accumulation by dispossession", is described by Thatcher et al. (2016: p.999-1000) as "data colonialism" (ibid.: p.990). Elsewhere Couldry and Mejias (2019: p.336) also describe big data as "a new form of data colonialism, normalizing the exploitation of human beings through data, just as historic colonialism appropriated territory and resources and ruled subjects for profit". Fraser (2019: p.193) points out that, for the most part, when employed by critical data scholars, 'colonial' is being used in a more "general sense", without particular relevance to race/ethnicity, or the historical subjugation of Indigenous peoples by alien forces. Indeed, this repurposing of the word 'colonial' is a point of contention for critics such as Calzati (2020: p.2) who argues that framing the rise of big data capitalism as 'colonialism' "overlooks the historical-materialist roots of both datafication and colonialism". Couldry and Mejias (2019: p.339) point out that they are deploying the term 'data colonialism' "not to make loose analogies to the content or form, let alone the physical violence, of historical colonialism", but instead are doing so to draw "parallels with historic colonialism's function within the development of economies on a global scale". However, the phrase "data colonialism" has been deployed by some critical data scholars to specifically draw attention to the perpetuation of neocolonial Western profiteering and coercion of the majority world through data in specific postcolonial contexts. For example, Mann and Daly (2019: p.379) point out that whilst "data gathering about colonized peoples and its use, including through categorization as a means of colonial control, is not new" in the digital era countries such as Australia can reproduce and exacerbate "preexisting colonial dynamics" by rapidly amassing large quantities of invasive surveillance data on Indigenous peoples, refugees and other marginalised groups. Referring to the D4D (Data for Development) projects led by Western international development agencies in Africa, Benyera (2021: p.6) writes that "the extraction, processing, and

redeployment of data ensures the asymmetrical power relations and injustices which started with the slave trade and continued through colonialism and are now being reproduced under coloniality". Bigo, Isin and Ruppert (2019: p.13-14) similarly argue that present day data for development initiatives such as UN Global Pulse "build on … imperial infrastructures and logics" such as the data collection and analysis methods invented by colonial powers to produce "colonial populations". However, Isin and Ruppert (2019: pp.223) also point out that "postcolonial data politics" is more complex, "reassembled, multiple, performed, visualised, and alive in ways that were inconceivable a generation ago".

Alongside calls to "decolonise data", a specific concept that has been taken up enthusiastically within the critical data studies community is that of 'data justice'. Whilst there are many differing conceptualisations of social justice, in the most basic of terms it concerns the realisation of "a fair and just society" (Singh, 2011: p.482). Therefore data justice is defined by Taylor (2017: p.1) as "fairness in the way people are made visible, represented and treated as a result of their production of digital data". However, it is worth noting that a wide variety of approaches and interpretations of how data and social justice relate exist, from developing an understanding of how data and structural inequality intersect, or generating new principles for data collection or handling, to identifying ways data can support activist movements (Dencik et al., 2019). Data justice has emerged out of the recognition that data is never neutral, and that data processing shapes "the kinds of information valued and what is 'knowable' and therefore acted upon" (Dencik et al., 2019: p.873). Data justice has been approached in relation to the upholding of governmental power asymmetries, the impact of dataveillance on social justice organisations, and the potential to 'visibilise' poverty and inequality (Taylor, 2017).

The latter would seem the most obvious focus for data justice work within international development. Heeks and Renken (2016: p.96), however, demonstrate that the "ways forward for data justice for development" does not necessarily align with mainstream 'instrumental', 'procedural' and 'distributive' conceptualisations of data justice. There is much to consider, from the need to render data 'small' and usable by specific communities to meet their needs, to sustainability, to whether people have the agentic capability to access data justice even if it is supposedly available to them. In a later paper, Heeks (2017: p.5) reinforces the point that data justice for development must be structural – i.e. that it must consider "the ability of powerful actors – because of the disposition of social structure – to shape other aspects of data justice". Data justice does not exist in a vacuum. It is inextricable from the hierarchical power relations that structure our broader social world. Data justice in the majority world necessitates the dismantling of unfair social structures more generally, rather than just, for example, gaining consent for data collection and use.

Whilst the transformation of structural power relations inhibits the full realisation of justice, data related or otherwise, Dencik et al. (2019: p.876) argue that data justice can be used as "a framework for shifting the entry-point and debate on data-related developments in a way that foregrounds social justice concerns and ongoing historical struggles against inequality, oppression and domination". Some studies have worked in participation with communities to map out steps towards data justice that can be implemented within specific development programmes. For example, Albornoz et al. (2019) worked with community members in an informal settlement in Lima, Peru to broaden the concept of data justice and inform the design and reduce the harm of future data practices implemented by development practitioners in vulnerable communities. They collaboratively identified the need for data gathering organisations to build the data capabilities, data ownership and community-based data infrastructure of the communities that they work with to avoid deepening and reproducing oppression.

2.10 Data Feminism

Of particular relevance to work concerning the gender data gap is another area of critical data studies – data feminism. This emerging body of work (searching "feminis* data" and "data feminis*" on SCOPUS only yields 8 and 3 relevant results respectively) could be considered a form of data justice scholarship. After all, intersectional feminism is in itself a social justice movement, existing to counter the unfair reality of gendered, racialised, classed and ableist societies. So far, data feminists have, for example, examined how sexism negatively affects people's attitudes towards 'feminine' data visualisations (Hill et al., 2016), put forth a feminist situated ethics framework for online big data research (Corple and Linabary, 2020), and demonstrated how computational topic modelling can offer nuanced insights into reviews about breastfeeding in public spaces (Concannon et al., 2018). It is clear that data feminism, like data justice, is about seeking to overturn injustice in a datafied world, whether that be through critique of current data practices, developing new tools and approaches to data use, or exploring ways in which data could improve women's lived experiences.

Yet what sets a data feminist approach apart from data justice in general is the vast number of ground-breaking theories and concepts under the umbrella of 'feminist scholarship' that, when brought to bear on the issue of data, illuminate and extend data justice work in new and beneficial ways. D'Ignazio and Klein (2020: p.8) in their book 'Data Feminism' define the approach as "a way of thinking about data, both their uses and their limits, that is informed by direct experience, by a commitment to action, and by intersectional feminist thought". Coined by feminist legal theorist Kimberlé Crenshaw in the late 1980s, intersectionality denotes the way that women's experiences

are simultaneously "shaped by other dimensions of their identities, such as race and class" as well as their gender (Crenshaw, 1991: p.1242). In 'Data Feminism', D'Iganzio and Klein (2020) draw on intersectionality to demonstrate, amongst many other things, that the absence of a national system for tracking maternal health outcomes in the USA, despite studies showing that Black women are over 3 times more likely that White women to die from pregnancy- or childbirth-related causes, is indicative of racism and patriarchy intersecting to affect which data, and which women, are valued and therefore collected, analysed and acted upon.

The above example regarding how the intersection of gendered and racial discrimination contributes to a lack of data accountability for pregnant Black women in the U.S., demonstrates why taking a data feminist approach makes particular sense when studying a topic that directly relates to women and women's lives. Feminist theorists have generated decades of theoretical and empirical work that has enabled us to understand the way that gendered power relations have, and continue to, subordinate women globally. Elsewhere Cooky et al. (2018) drew upon concepts such as feminist holistic reflexivity and subjugated knowledges whilst analysing 2014 Tweets that contained #WhyIStayed. This hashtag event was created by author and domestic violence survivor Beverly Gooden in response to the victim-blaming of Janay Rice, who was brutally beaten in an elevator by her then-fiancé, former National Football League running back Ray Rice. Cooky et al. (2018) included semi-structured interviews with Twitter users who tweeted using the #WhyIStayed hashtag to generate 'thick data' (Wang, 2013) that gave more nuanced understandings of the social media data sets, as well as providing an avenue to explore risks and vulnerabilities for the research participants. They also drew upon the concept of 'subjugated knowledges' when making the decision against utilising cheaper but partial Twitter data-sets (which would "inadvertently silence" many of those who had tweeted), instead undergoing a lengthy and frustrating process which luckily ended with getting the data for free from an organisation seeking to end domestic violence. As this example demonstrates, in seeking to analyse or carry out female-focused data projects, such as development projects focused on 'closing the gender data gap', it therefore perhaps makes sense to draw upon feminist principles that were developed specifically with women's lives, and gendered power relations, at the centre.

Yet data feminism can also involve applying feminist principles to data more generally, in order to further fairness and justice for all. Aristea Fotopoulou (2019: p.234), for example, draws upon a different feminist concept – "an ethos of care" or "feminist care ethics" – to analyse health data practices. Also known as 'care ethics' or 'feminist ethics', this approach "emphasizes responsibility and caring relationships rather than more abstract ideas about rights, justice, virtues, or outcomes" (Bell, 2014, p. 80). Coined by the 1980s by feminist philosopher Carol Gilligan (1982), ethical

decisions based on feminist notions of care should be made contextually and holistically, focusing on the needs of those involved, with communication to maintain strong inter-personal relationships, rather than 'rationally' adhering to a universal set of rules and principles as with an ethics of justice. An ethos of care in studying data practices, Fotopoulou (2019: p.238) argues, is complimentary to, rather than irreconcilable with, data justice. It entails asking 'why do we care?', which "inserts particularity and empathy in social justice frameworks" (ibid.). This centres the affective, material and the embodied – the everyday experiences, voices and lives of those implicated within the unequal "power relations inherent" in data practices (ibid.: p.228). Rather than being guided by abstract rights and responsibilities, a 'feminist care' approach to data justice should take a firm standpoint – "to actively seek to incite readers to care for a more just world" (ibid.: p.239)

Yet despite the significant contributions of feminist scholars of data, little exploration of 'data for development' has been carried out by data feminists, just as few critical data for development studies have drawn on feminist theories and ideas. The previously mentioned paper by Fuentes and Cookson (2020) and thesis by Delnevo (2017) are the rare exceptions to this, bringing feminist theory to bear in order to make sense of the 'gender data revolution' in development. Furthermore, whilst critical data for development studies have drawn on postcolonial and decolonial theories and ideas, the body of explicitly 'data feminist' work discussed above has tended to draw from Black feminist scholars instead, perhaps as a result of much of this academic 'data feminism' focusing on, and taking place in, contexts such as the U.S. rather than in the majority world. As Leurs (2017: p134) notes, "feminist and postcolonial scholarship and data studies remain as largely unconnected fields with little cross-fertilisation". Yet Delnevo's (2017) thesis demonstrates how valuable postcolonial and decolonial feminist thought in particular can be in making visible the power relations that are necessarily imbricated in Western development agencies initiating 'gender data' projects that collect, analyse and implement digital information about women's lives in post-colonial majority world settings. Building on this foundational work this thesis makes a new contribution to the field by not only taking an anticolonial feminist approach to gender data for development, incorporating both postcolonial and decolonial feminist work, but by utilising this lens to examine empirical data gathered on a specific development project seeking to 'close the gender data gap'; Girl Effect's TEGA project in Bangladesh. In doing so, this thesis provides new evidence as to how the 'gender data gap' discourse plays out on the ground, and the extent to which 'closing the gender data gap' really can lead to 'closing the gender gap' and advancing women's and girl's equality in the majority world.

2.11 Research Questions

In order to make the contributions highlighted above, this research sought to answer the research questions below:

1. **From an anticolonial feminist perspective, what is the contribution of digital peer-to-peer research with young women towards closing the gender data gap and the gender gap?**

   a. In what ways did the TEGA project in Bangladesh close the gender data gap?
   b. In what ways did the TEGA project in Bangladesh close the gender gap?

2. **What are the wider implications of an anticolonial feminist approach for gender data for development projects in theory and practice?**

2.12 Conclusion

In conclusion, this literature review has provided an overview of the fields of study that inform an investigation into the efforts by development organisations to 'close' the gender gap through gender data. In doing so, it has made clear the overlapping similarities and discontinuities between these various bodies of work, revealing the gaps that lie between them, two of which this thesis addresses; Firstly, the lack of empirical studies of development projects seeking to close the gender data gap, and secondly, the scant anticolonial feminist analyses of data for development initiatives targeting women and girls in the majority world. This chapter has also introduced the research questions that this thesis answers in order to address these absences.

Despite the lack of literature directly investigating the race to close the 'gender data gap' in the name of development from an anticolonial feminist perspective, this literature review has highlighted the sizeable amount of work that has been carried out which is relevant to this subject. Firstly, it summarised the long-running debate over the concept of 'gender'. It was highlighted that despite the extensive work of largely feminist theorists to deepen our understanding of the concept as more than a biological given and instead reflective of social conditioning about how certain bodies should behave, it continues to often be used in relation to 'women' or 'women's issues'. This is the case, for example, in much development work, which the literature review next discussed. In summarising the vast field of 'development studies', it was noted that there is no singular definition of 'development'. This chapter delineated the mainstream form of international development, sometimes referred to as Big 'D' development, defined by Hart (2001: p.650) "as a post-second

world war project of intervention in the 'third world'' by Western organisations and governments, in comparison to little 'd' development which is "the development of capitalism as a geographically uneven, profoundly contradictory set of historical processes". Much of the 'gender data for development' work carried out so far falls into the former category. Whilst recognising that the 'D/d' binary distinction does not capture the ways in which these forms of 'development' have always interacted and shaped one another, as well as the fact that the West has increasingly focused on foreign policy over aid and that China and other non-Western countries are now "key player[s] in development assistance" (Lewis, 2019: p.1970), this chapter finds that Western development intervention into the majority world is still a major industry, involving and affecting the lives of billions of people every year. Furthermore, despite the fact that Western 'D'evelopment has existed in many forms, this review notes that the key Western Enlightenment-based principles that have underlain this sector since the beginning, including an emphasis on 'modernity' over 'tradition', and 'perpetual growth' over 'circularity', continue to pervade (Cowen and Shenton, 1996).

These ideologies and assumptions are present, for example, in the sub-field of ICT4D (Information Communication Technology for Development), which this chapter also investigated due to it being the division leading the data-driven development charge. Through reviewing the ICT4D canon, it becomes clear that just as the "mainstreaming" of gender has been a key priority for Western development organisations since the 1970s when it was recognised that not acknowledging gendered power relations had left women in the majority world worse off than they had been prior to intervention (Moser, 2005), 'gender' has also been a central consideration for many IC4TD schemes. Yet across 'D'evelopment, including that which is ICT focused, the progression of gender and development theory from a "just add women and stir" WID approach (Harding, 1995) to a GAD approach that "centers on the power relations between women and men" has not easily been manifested in practice (Plewes and Steurt, 1991: p.127). Much 'gender and development' work, both digital technology based or otherwise, continues to reduce 'gender' to 'women', and focus on, for example, giving women access to, and/or training in, ICTs as the key to transforming gender relations, rather than the other way around.

These troubling aspects of the "Western development machine" (Condon, 2012: p.12), which have not disappeared as it has become ever more digital tech and data driven, have been the subject of much criticism. This chapter mapped out of two of the most influential bodies of critique – namely, post-development and anticolonial scholarship – and considered their similarities and divergences. Whilst both have made significant contributions, the literature review finds anticolonial theories – namely postcolonial and decolonial schools of thought – to be considered by some to offer the way forward for development. For example, McEwan (2009: p.105-106) argues that postcolonial scholars

are "more constructive", as they do not reject the multifarious concept of 'development' outright. Instead, as Ruíz (2021: p.543) puts it, they focus on "recovering subaltern histories and writing histories 'from below'" in ways that avoid narrowly and naively romanticising pre-, and post-, colonial societies through highlighting the hybrid, contextual complexity of power relations (Noxolo, 2016). It is this postcolonial challenging of grand narratives and Eurocentric ways of 'knowing' that then enables decolonial scholars to generate alternative ways of 'doing', "being, thinking, knowing, sensing and living" beyond the "colonial matrix of power" (Mignolo and Walsh, 2018: p.81), such as a 'Southern Theory' approach to ICT4D (Kreps and Bass, 2019: p.1). Postcolonial feminist scholars, in particular, have 'gendered' postcolonial and 'racialised' feminist development theories through "developing theoretical frameworks for establishing and understanding the interconnection between gender, race and imperialism" including "how particular power relations and forms of knowledge prevalent in colonial times are apparent in strands of contemporary development discourse" and have "gendered and racial distinctions" (Kothari, 2002: p.46-48). Decolonial feminist scholars have then sought to instigate "politically engaged" movements for change that challenge these colonial strands (Giraldo, 2016: p.160). Yet despite the influential role that anticolonial feminist insight has had in development theory and practice broadly, and the fact that they have been noted to offer important ideas that could help address challenges in ICT4D work seeking to bring about gender equality (Asiedu, 2012: p.1200), this literature review found little anticolonial feminist ICT4D work, and in particular very few anticolonial feminist analyses of the "datafication of development" (Heeks and Shekar, 2019).

What makes this gap in the literature particularly surprising is the fact that it is not just data, but 'gender data', or digital information on the lives of women and girls, that is being especially invested in and promoted at this time (Fuentes and Cookson, 2020). A large amount of Western development aid has been spent on the mission of 'closing the gender data gap' in order to 'close the gender gap'. Driving this development trend is the belief that with more and better evidence development organisations will be able to create interventions that better meet majority world women and girls' needs, and that they will be able to monitor and evaluate these projects more effectively too. Despite the large number of programmes and actors involved in the "gender data gap project" (Delnevo, 2017: p.17), however, very little academic research has been conducted on this phenomenon, and there is a lack of empirical studies of projects seeking to 'close' the 'gender data' and 'gender' gaps. However, this literature review did find a significant and growing amount of critical data for development work, as well as feminist data studies. Yet despite the many critical perspectives, theories and concepts that these bodies of work offer to an investigation into the "gender data revolution" (Fuentes and Cookson, 2020), critical data for development studies has engaged with anticolonial theory more than it has feminist theory, and feminist data studies has greatly drawn

from feminist theory, including Black feminist literature, but little anticolonial scholarship. In the words of Leurs (2017), "feminist and postcolonial scholarship and data studies remain as largely unconnected fields with little cross-fertilisation". There is an absence of anticolonial feminist theory in either. Perhaps this is due to the fact that gender data for development projects specifically have not yet been researched by critical data for development or feminist data scholars. In conclusion, then, this literature review has provided the rationale for this study by surveying the literature and finding that within several overlapping fields of study few anticolonial feminist studies of gender data for development can be found, and there is a dearth of empirical studies of gender data for development projects. This thesis therefore makes two new contributions by bringing together these overlapping fields of study to conduct an anticolonial feminist empirical investigation into a project that sought to 'close the gender gap' through closing the 'gender data gap' with young women in Bangladesh, named here as TEGAs.

Chapter 3: An Anticolonial Feminist Methodology

3.1 Introduction

This research investigates the claim that gender data for development projects are closing the 'gender gap' by closing the 'gender data gap'. This is done via examining the TEGA gender data project through an anticolonial feminist theoretical lens. Having previously outlined the relevant literature in Chapter 2, Chapter 3 now provides an overview of the methodology deployed in order to fulfil this investigation. I also reflect upon how I carried out the research in practice.

Section 3.2 first outlines the philosophical and epistemological underpinnings of an anticolonial feminist methodology. The two shared principles of anticolonial feminist research are: a) to minimise intersectional power relations, and b) to bring tangible benefits to majority world women. Meeting these two requirements necessitates that anticolonial feminist researchers practice reflexivity throughout the research process. Reflecting on the extent to which this thesis research achieved the principles of anticolonial feminist research was therefore a key part of the anticolonial feminist methodological approach. A detailed timetable for the research can be found below (see Figure 4). As Figure 4 shows, the research took place over six months in Bangladesh, and took a participatory approach. This involved using participant observation, interviews and participatory workshops and community events.

After Section 3.3, which explains why and how TEGA Bangladesh came to be the field-site for this research, Section 3.4 outlines the overarching participatory research design. Section 3.5 then discusses participant observation and interviews, including why these were the main methods used in the first three months of the fieldwork and the practical details of what carrying out these methods entailed in practice. The employment of research assistants to assist with interpretation and translation of the interviews is also discussed. Section 3.6 then moves on to discuss the participatory workshops and community events which took place in the latter three months of my time in Bangladesh. As anticolonial feminist praxis is action oriented, as well as theoretically informed, these participatory workshops and community events sought to address one of the concerns that the TEGAs had raised regarding the TEGA Bangladesh programme – the fact that the findings of the TEGA data collection were not shared back with the TEGAs or their communities. After establishing this rationale for the use of participatory action workshops at this stage of the fieldwork, Section 3.6 also provides practical details about the activities involved in the workshops and community events that came about as a result of working collaboratively with the TEGAs. Further details on the outcomes of this participatory process can be found in findings Chapter 6: 'Enacting

anticolonial feminist data for development'. Section 3.7 then details the data analysis process that I underwent after returning from Bangladesh.

Lastly, Section 3.8 explores my reflections on the research. I structure these reflections into three separate sections, drawing on Wolf's (1996) observation that power operates in research through: a) the different positionalities of the researcher and researched, b) how the research is defined and carried out, and c) in the post-fieldwork analysis, writing and representation. This reflexive discussion concludes that the extent to which academic research, including this thesis, can achieve the anticolonial feminist ideals - of benefitting the researcher and research participants equitably and disrupting power relations - is limited. However, in practicing reflexivity and being open about the limitations of research we can conduct studies that are as ethical and rigorous as possible in this unethical and complex world.

Research Tasks	April '19	May '19	June 2019	July 2019	Aug 2019	Sept 2019	Oct 2019	Nov '19	Jan '20
Location	Bangladesh	Bangladesh	Bangladesh	UK	UK	Bangladesh	Bangladesh	Bangladesh	UK
Participant Observation	▇	▇	▇			▇	▇	▇	
Interviews									
Interviews with TEGAs		▇							
Interviews with Girl Effect/iSocial staff in Bangladesh			▇					▇	
Interviews with Girl Effect staff in London					▇				
Interviews with consortium partners								▇	
Interviews with respondents								▇	
Reflecting on findings	▇	▇	▇	▇	▇	▇	▇	▇	▇
Participatory Research									
First Focus Group							▇		
Second Focus Group								▇	
Community Events								▇	
Presentation of findings and discussion with Girl Effect HQ									▇

Figure 4: *Research Timetable*

3.2 Anticolonial Feminist Research

Whilst the literature review in Chapter 2 outlined the history, key thinkers and foundational concepts of anticolonial feminist theory, this section details the methodological implications of this approach. In keeping with the gender data subject-matter and anticolonial feminist theoretical approach of this research, this thesis also employs an anticolonial feminist methodology, that is rooted in anticolonial and feminist epistemology. This section outlines the key principles of anticolonial feminist research that guided my research design and practice.

3.2.1 Feminist Research

Feminist research is a "perspective" (Reinharz, 1992: p.241), rather than a set of clear-cut methods, that emerged as a critical response to 'traditional', male-oriented research. Pioneering feminist academics noted that "most of the knowledge produced in our society has been produced by men" and for many years they had "passed off" this knowledge as human knowledge" (Spender, 1981: p.1). Some feminists also argued against the positivistic statistical social science that the male-dominated academy had upheld, which was based on the epistemic belief that generalisable patterns of social behaviour can be discovered by 'objective' and 'logical' scientists. They argued that this research paradigm overgeneralises and flattens difference, is unrealistic in its exclusion of emotions and values from the research process (Jaggar, 1997), and sustains dualistic separations between rationality/emotion, and the subject/object of research that reinforce unequal, and gendered, power relations (Hekman, 1990; Sprague and Zimmerman, 1993). Donna Haraway (1988: p.584) famously named this claim to 'value-free' and 'objective' research as the "god trick", as it is "a mode of seeing that pretends to offer a vision that is from everywhere and nowhere". For some feminist researchers, the way forward was to develop a feminist empiricism, in which the quantitative measurement of social behaviours across societies could be used for feminist ends (Chafetz, 1999; Spalter-Roth and Hartmann, 1999). However, other feminist researchers instead worked to "question existing 'truths' and explore relations between knowledge and power" (Ramazanoglu and Holland, 2002: p.16).

This research falls into the latter category. This type of research, including my own, tends to utilise qualitative methods. More details on why I specifically chose participant observation, interviews and participatory workshops as my methods can be found in Sections 3.5 and 3.6. Feminist research is associated with qualitative methods because they are considered "best suited to the project of hearing women's accounts of their experiences" (Oakley, 1998: p.708). This methodological approach of prioritising women's own stories as evidence directly opposed the masculinist scientific empiricism that was once held up as the 'gold standard' of academic research. Indeed, the way that

qualitative methods "place women's lives and knowledge at the center" (Falconer Al-Hindi, 1997: p.146), and therefore "position the *participant* as someone who informs the researcher" (Oberhauser, 1997: p.167), goes some way towards reducing the researcher/researched power hierarchy, and could thus be considered 'empowering' for female participants. Yet, as Letherby (2003: p.96) argues, "there is no such thing as the feminist method". Neither qualitative nor quantitative methods "are particularly feminist or nonfeminist", but must be used "with a feminist focus, or with a feminist lens" (Leckenby and Hesse-Biber, 2007: p.5).

So, what is this 'feminist lens'? Across the diverse range of feminist research projects two key attributes are mostly common throughout. Firstly, feminist research should be "*for* women", not just about them (Nazneen and Sultan, 2014: p.64). This means ensuring that "research projects have practical implications for the improvement of women's lives" and are thus politically and ethically engaged (Harding and Norberg, 2005: p.3). As author bell hooks (1994: p.71) points out, "in this capitalist culture, feminism and feminist theory are fast becoming a commodity that only the privileged can afford", and it is therefore vital that feminist scholars engage in "transformative politics and practice". Additionally, whilst feminist research need not necessarily focus on women, in general feminist researchers "have always been concerned with including women in their research in order to rectify the historic reliance on men as research subject" (Hesse-Biber et al., 2004: p.18). My reflections as to the extent to which this research was able to realise this ambition of making a tangible difference to women's lives can be found in Section 3.8.

3.2.2 *Anticolonial* feminist research

The second shared principle across feminist research, alongside being *for* women, is that it should also "minimize ... power differences between the researcher and the researched" (Harding and Norberg, 2005: p.3). As this thesis takes an *anticolonial* feminist theoretical approach and explores the subject of gender data for international development in Bangladesh, this second overarching feature is particularly pertinent. Minimising power differences in research encounters requires paying attention not only to gender hierarchies, but also the way in which race, class, religion, (dis)ability, age and nationality intersect with, and deepen, gender inequality (Thornton Dill and Kohlman, 2012). Anticolonial feminist researchers have been particularly influential in debating and developing research strategies that can lessen the power hierarchy between researchers and their research participants, drawing on the rich body of feminist anticolonial theory, from both decolonial and postcolonial schools of thought (Özkazanç-Pan, 2012). However, they have also made clear the limits of attempts to flatten power discrepancies. Linda Tuhiwai Smith (2005: p.87), writes, for example, that:

The history of research from many indigenous perspectives is so deeply embedded in colonization that it has been regarded as a tool only of colonization and not as a potential tool for self-determination and development. For indigenous peoples, research has a significance that is embedded in our history as natives under the gaze of Western science and colonialism

The legacy of colonialism, with power continuing to be unevenly distributed within the world amongst different people and countries, renders neutral and apolitical research in the majority world as a Western researcher an impossibility. Yet Mohanty (2003: p.509), revisiting her earlier piece 'Under Western Eyes' (1988) argues that, in light of globalisation, there are now "possibilities", and "necessities", in crossing the divide between 'Western' and 'Third World' women in order to foster a "cross-national feminist solidarity" and "anti-capitalist transnational feminist practice" with, and for, women workers across the world. The extent to which "situated solidarities" (Nagar and Geiger, 2007: p.269) in anticolonial feminist research can be formed requires an ongoing "reflexive analysis of how the production of ethnographic knowledge is shaped by the shifting contextual, and relational contours of the researcher's social identity" (Nagar, 2002: p.179). Alcoff (1991) argues that this reflexivity should involve researchers questioning their motivations to 'speak for' others, and the effects that the words they produce will have on those they wish to write about, as well as making sure to make room for, and listen to, dialogue and critique with research participants, all the while considering how their shifting positionality will shape what participants feel they can say. I myself committed to reflexivity throughout the research process. I write about this in Section 3.8: 'Reflections'.

Having outlined the philosophical underpinnings of an anticolonial feminist methodology in this section, the following section provides the background and context as to why Girl Effect's TEGA project in Bangladesh was selected, and negotiated, as the site of the fieldwork.

3.3. Finding the 'field' and negotiating access

I first came across the TEGA project whilst working as a freelance consultant for Girl Effect in 2017. I had been contracted to write a report on Girls' Lives in India for their Gender team, and during one of my meetings there TEGA was mentioned (for an introduction to the project see Chapter 1, Section 1.2). I was immediately interested in the concept of TEGA, as I had never heard of a project quite like it before. The concept of training young women from the communities in which NGOs worked to carry out data collection appealed to my anticolonial feminist sensibilities

– what better way to lessen power relations in the research process than to remove the white, Western researchers from the equation, I thought.

Once I had started the DPhil, I emailed my contacts from the Girl Effect Gender team and asked if they might be able to put me in touch with Lisa7, who was the Head of TEGA at the time, via email. She agreed to meet to discuss my proposed thesis project further and was immediately open to the concept of me conducting the research, which slightly surprised me. As Wolf (1996) argues, negotiating access in research is often difficult. Furthermore, a number of academics have written highly critical pieces on Girl Effect (Bent, 2013; Calkin, 2015; Endsley et al., 2016; Ging-Dwan Boyd, 2016; Hengeveld, 2016; Hickel, 2014; Koffman and Gill, 2014; Moeller, 2013; Shain, 2013; Switzer, 2013). Perhaps the highest-profile examples of these critiques of Girl Effect, and the version of development that the organisation builds upon and perpetuates, is Kathryn Moeller's (2018) book 'The Gender Effect: Capitalism, Feminism, and the Corporate Politics of Development'. Over a decade, Moeller engaged in ethnographic study of Girl Effect in the US when it was the philanthropic arm of Nike, in order to "illuminate how corporations position girls and women as instruments of poverty alleviation and new frontiers for profit" (ibid.: p.1).

Due to this legacy of critical work, I was unsure that my request to carry out DPhil research would be accepted. Whilst I had Lisa's support, in order for my research to be approved I was required to sign a contract with Girl Effect stipulating certain restrictions (see Appendix C). As Campbell et al. (2006) note, gatekeepers exist at various levels in research, and gaining support at one level does not necessarily negate the need to re-engage with additional gatekeepers throughout the process. The process of negotiation between myself, my supervisors, the Oxford Research Services legal department and Girl Effect's legal team, took some time, and in the end it was agreed that Girl Effect could review, and make comments on, any writing that I produced and wished to publish. Bornstein (2014: n.p.) states the donor dependency and "nonprofit motive" of NGOs creates these particular "delicate spaces" through which those researching NGOs, such as myself, must "tread lightly".

After the signing of the contract, my conversations with the Girl Effect London office felt more formal. Lisa, with whom I had a strong relationship, left Girl Effect at the end of 2018, and the contract negotiation brought increased scrutiny upon my research. This contrasted strongly with my experience negotiating access with the Bangladesh network. The team there were enthusiastic about me participating in their work. I spoke to TEGA Malawi and India too, but they cautioned me against choosing them due to project delays and a lack of current TEGA research work. The

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7 Pseudonym used for anonymity purposes

Bangladesh TEGA network had been in operation for over a year, and had lots of planned upcoming research. They also made it clear how welcome I was to come to Dhaka, saying that they would help me in any way that they could. Therefore, I selected the Bangladesh TEGA network for my fieldwork. Once in Bangladesh, of course, I had to continue to negotiate access to meetings and different aspects of the project – for more details on this see Sections 3.5, 3.6 and 3.8.

3.4 Overall Research Design

Emerging out of the desire to "break the monopoly on who holds knowledge and for whom social research should be undertaken" (Fine, 2008: p.215) participatory research aims to do research 'with' rather than 'on' people, producing findings that not only directly benefit the participants but also fairly represent them (Cahill, 2007). As a result, it has been noted to be conducive to academics engaging in anticolonial feminist praxis, as it directly seeks to address hierarchies of power both within research but also in the everyday lives of research participants (Askins, 2018; Barker and Pickerill, 2020). There is no singular type of participatory research – instead it is an approach to research that can be interpreted in different ways (Holland et al., 2010). This has led to cases of 'participatory research' being leveraged in ways that entrench the status quo to a greater extent than it radically transforms it (Cooke and Kothari, 2001; see Section 3.8.2 below for more on these critiques). Nevertheless, and despite these concerns, participatory approaches continue to be drawn upon by academics and practitioners seeking to lessen neocolonial and patriarchal power relations through their work, albeit in a reflexive and critical, rather than overly optimistic, manner (Coghlan and Brydon-Miller, 2014; Seppälä et al., 2021).

Participatory research does not employ a particular set of 'methods', but is instead is formed around a set of principles, including the belief that the knowledge of ordinary people is as valid (if not more) than that of academics, and that research should be oriented towards 'action' (Laws, Harper and Marcus, 2003: p.49). The research design employed for this thesis included both participant observation and interviews, as well as participatory workshops and community events. Most of the interviews took place between April and June 2019, whereas the participatory workshops took place between September and December 2019. The participant observation was carried out throughout this period. I also engaged in critical reflexivity throughout the research process, including whilst in the UK in July and August 2019 when I returned to renew my visa to stay in Bangladesh.

The participant observation and interview data gathered during the research process revealed that those participating in the TEGA programme, most importantly the TEGAs themselves, felt that the project did go some way towards closing gaps in both gender data and gender equality, but that it

also could go further. The participatory workshops involved some of the TEGAs and I working collaboratively to address one of the specific issues that they had raised during our time together: the fact that the findings of the data collection that they engaged in were not shared back with them or their communities, therefore limiting the extent to which progress could be made on closing information gaps and furthering gender equality at the grassroots level. This led to us co-facilitating a series of community data sharing events on child marriage.

Below is a diagram showing how the different research methods were used throughout the fieldwork:
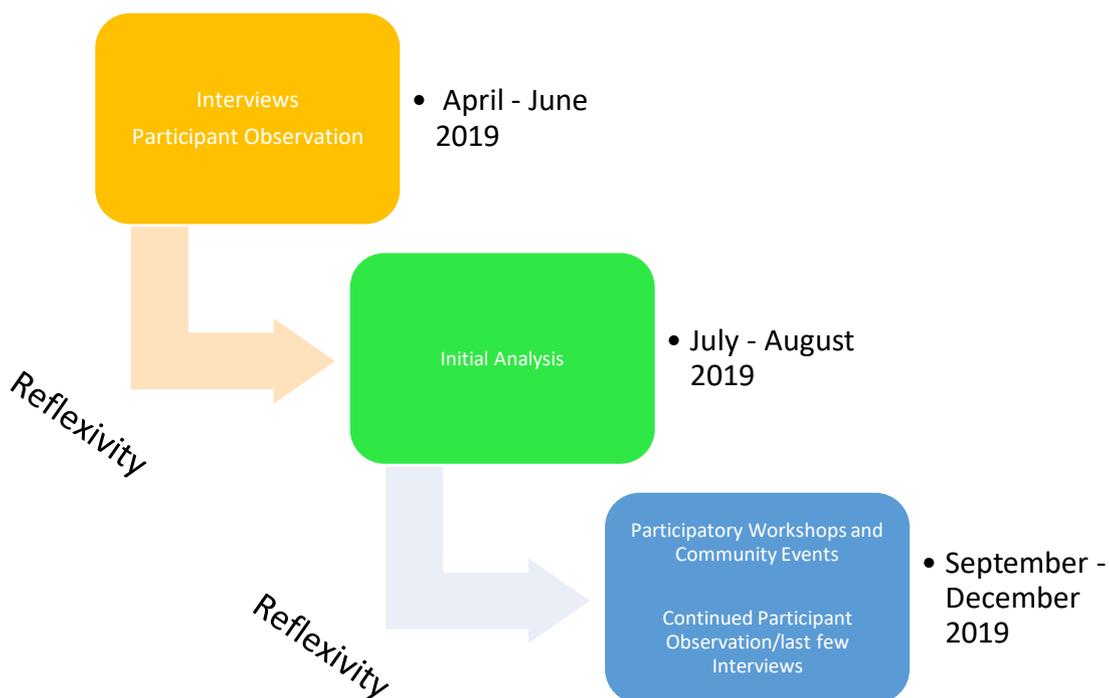
Figure 5: *Flow diagram showing the different methods and when they were utilised during the fieldwork*

3.5 Participant Observation and Interviews

The first phase of the research (April – June 2019) mostly involved engaging in participant observation of the TEGA project in Bangladesh, along with semi-structured interviews with the TEGAs. Below, Table 1 details the data collection process in Phase 1, including sampling strategy, instruments used and the data analysis process.

Table 1: *Fieldwork Phase 1 Data Collection Details*

	Participant Observation	Interviews
PARTICIPANTS		
Selection Criteria	Observed the day to day running of the TEGA project in Bangladesh	Interviewees were selected due to their involvement in the TEGA project in Bangladesh
Sampling method	Purposive sampling	Purposive Sampling
Recruitment method	I recruited the TEGA project in Bangladesh via contacts within Girl Effect	I recruited the TEGAs and respondents with the help of the Girl Effect/iSocial field staff. I recruited all others myself via email/face to face invitations
Sample size	N/A	47 TEGAs, 4 iSocial staff, 3 Girl Effect staff in Bangladesh, 3 consortium partners, 19 respondents, 1 Girl Effect staff London
DATA COLLECTION		
Instruments	My laptop and Word documents (observation notes and research diary)	Face to face for almost all. Example interview schedule in Appendix A.
Recording	Notes were typed up into a Word document (observation notes and research diary)	Interviews were recorded using Voice Memos on my phone and transcribed on my laptop on Microsoft Word
DATA ANALYSIS		
Tools	Notes were analysed with a thematic content approach in Word	Transcripts were coded and analysed in Word (see Section 3.7 for more details)

3.5.1 Participant Observation

I spent most of my time in Phase 1 of the fieldwork engaging in participant observation of the TEGA project in Bangladesh according to the protocol detailed in Table 1 above. This included taking part in a wide range of project activities, from training events, to community engagement activities, to meetings, to data analysis, to proof-reading documents, as well as everyday conversations and informal interviews. For more details see Table 2 below. It is worth noting that I also engaged in participant observation in Phase 2 of the fieldwork, alongside utilising more participatory methods.

Table 2: *Participant Observation Details*

Timescale of PO	Location of PO	Participants in PO	Types of observations made during PO	Data collected during PO
6 months (April to June '19 – Sept – Dec '19)	Bangladesh - mostly in the iSocial office (in country partner of Girl Effect where TEGA Bangladesh was headquartered). Also at various training days, meetings, events held elsewhere in Dhaka or Bangladesh relating to the TEGA project	Those involved in TEGA Bangladesh - staff (both iSocial and Girl Effect), the TEGAs, the TEGA's families and communities, the consortium partners, funders, etc.	Times & locations of day to day project activities, plus participants involved. Details of what happened during project activities – i.e. where did participants sit/stand, who spoke/who did not, what did they say/not say, what were the outcomes etc. Participants' thoughts/feelings/emotions (observed through what they say/how they act)	Observation notes Daily research diary (typed up observation notes with added reflection) Transcripts of informal conversations/participant quotes

Studies utilising participant observation "lend themselves to rich, interpersonal explorations of women's experiences while avoiding the detachment inherent in positivist protocols that posit a strict separation of subject and object, knower and known" (Wheatley, 1994: p.404). This method is also considered "exceptional" in research situations where "the phenomenon is somehow obscured from the view of outsiders" (Jorgensen, 1989: p.12). It enables you to build rapport with people and observe situations unfolding over time, "illuminating mismatches between what participants say and what they do" (Johnson et al., 2011: p.268). For this reason, it is a popular choice for academics wishing to unpick hegemonic development discourses, such as the gender data gap. For example, through participant observation of a conditional cash transfer (CCT) programme in Peru, Tara Cookson (2018, in Cookson and Fuentes, 2020) was able to uncover a discrepancy between the statistics-oriented routine evaluations of the project (which deemed it to be a success) and the on-the-ground reality of "costs to women's time, dignity, and agency". This only became apparent through engaging with actors at all levels of the organisation, from the female participants to the leadership team, over a number of months. Markowitz (2001: p.43) terms this a "follow the project" approach of "polymorphous engagement", whereby the researcher participates in a range of activities related to the NGO project in question, from perusing relevant documents, to attending organisational meetings and events, and from engaging in work tasks to chatting to team members. Markowitz (ibid.: p.43) argues that "following project trajectories" in this manner "offers a way to follow the expression of ideas about development or, more broadly, about salutary social change

from donors to stakeholders", noting differences in the "points of view of actors with different relations to the goals and activities nested within programs and projects".

Therefore during the first three months of my fieldwork I sought to uncover different perceptions of the TEGA programme through spending time with the young women enrolled within it, the field-staff, the local NGO office team, and those working for Girl Effect in Bangladesh and London. Spending time in Bangladesh and building reciprocal relationships with those involved in the TEGA project enabled multiple 'truths' to emerge, which I recorded in my field notes. I was then able to reflect on these from my own standpoint, in this case an anticolonial feminist one, to produce an account of 'closing the gender data gap' in international development cognisant of gendered and neocolonial power relations.

3.5.2 Interviews

Alongside engaging in participant observation, which included informal conversations, I also conducted more formal semi-structured interviews. Details of the participants, dates and locations of the interviews can be found in Table 3 below. Some of the interviews took place in Phase 2.

Table 3: *Interview Details*

Interviewees	Number of Interviews	Dates of Interviews	Location of Interviews
TEGAs	47	30/04/19 - 20/05/19	The TEGA's homes
iSocial staff	4	Various dates in June and November/December 2019	The iSocial/Girl Effect office in Dhaka
Girl Effect staff (Bangladesh)	3	Various dates in June and November/December 2019	The iSocial/Girl Effect office in Dhaka
Consortium Partners	3	19/11/19 - 21/11/19	Their offices in Dhaka
Respondents (people who took part in the TEGA research)	19	22/11/19 - 26/11/19	Their homes in Rangpur
Girl Effect staff (London)	1	08/08/2019	Their office in London
Total No. Interviews	**77**		

Face to face interviewing, in either a semi-structured or unstructured manner, has long been considered the "paradigmatic 'feminist method'" (Kelly, Burton and Regan, 1994: p.34), despite the fact that there is "no single, prescribed method or set of research methods consistent with feminist values" (Jayaratne and Stewart, 1991: p.100). In the case of this thesis, I decided that carrying out semi-structured interviews alongside participant observation gave space for those involved in the TEGA project to voice their personal and subjective views of the programme in their own words. I reasoned that this shift, from being an object of observation to becoming a more active informant, could go some way towards further lessening the gap in power between myself and the research participants. As Rubin and Rubin (1995: p.1) note, "[q]ualitative interviewing is a way of finding out what others feel and think about their worlds". Engaging in this method after some initial participant observation meant that I had a "baseline of meaning" from which I could refine my interview questions to focus more sharply on the key issues and themes of import to this specific project (Fetterman, 2015). I also had time to build up trust and rapport with the research participants before the interviews, going some way towards minimising the interviewee's discomfort in speaking openly to me. Very little research critiquing the "girl(ing) of development" (Hayhurst, 2011), and the datafication of development, has spoken to directly to young women in the majority world. This demographic is simplistically represented in binary ways by the 'girl effect' discourse, which renders them as both "empowered" and "weak" (Bellerose, 2017), and as "the world's most vulnerable population" that are simultaneously the "saviors of humanity" (Endsley et al., 2016). Girl Effect's TEGA project is exemplar of this, as it posits young women as the key to 'unlocking' valuable data from their communities whilst simultaneously saying that this data is needed so that development organisations can better 'target' their interventions to help Third World girls. I hoped that the interviews would enable the TEGAs, and the TEGA staff too, to portray themselves in their own words, allowing for "the diversity and complexity of embodied and situated experience to be told, heard and represented in ways that are not eaten up and spat out in hollow and caricature forms" (Epstein, Kehily and Renold, 2012: p.253).

For the TEGA interviews I travelled to visit the 47 TEGAs in the four different areas of Bangladesh in which they lived. The interview schedule can be found in Appendix A. There had been 48 TEGAs at the start of the project, but one girl had left before the end of the programme8. 12 TEGAs were based in Dhaka, 12 in Jessore, 12 in Bogra and 11 in Rangpur. In each of these locations (as mentioned in Section 1.2 in Chapter 1) there were also six project staff – five Field Officers (FOs) and one District Officer (DO). The project is designed so that two TEGAs report to one of these

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8 Different members of project staff gave different reasons for this TEGA leaving the project – I was told by some that her family had moved to a different area, and by others that she had been married and was no longer able to participate as a result

six field staff. The field staff also accompany the TEGAs whilst they are conducting their data collection. The DO, as well as having responsibility for two TEGAs, has general oversight of the network and liaises with the office in Dhaka alongside other responsibilities. Interviewing the TEGAs involved travelling to each of their houses along with the DO and, sometimes, the FO relevant to the TEGA we were visiting, accompanied by one of my two research assistants. The field staff would chat to the family outside whilst myself and my accompanying research assistant conducted the interviews. The interviews lasted between half an hour and one and a half hours, depending on how long each TEGA wanted to speak for. I provided detailed information about the study at the beginning of each interview and gained written consent (see information letter and consent form in Appendix B). All interviews were audio recorded with permission and then transcribed, using pseudonyms to protect the interviewees' anonymity.

3.5.3 Research Assistance

As alluded to in the previous paragraph, I employed two Bangladeshi research assistants to help me carry out the interviews, Rakiba and Tasnia. Whilst the main role that the two research assistants provided was interpretation, I prefer to use the term 'research assistant' over 'interpreter' as I feel this better captures the fact that "there is much more to an interpreter's role than the verbatim translation of questions and responses … they also act as a kind of cultural broker" (Leck, 2014: p.62). As well as helping me to overcome the language barrier, the two research assistants gave me broader contextual insights, helped me establish connections with the research participants, and also were my companions and logistical problem-solvers as we travelled around the country. As well as interpreting the interviews with the TEGAs and the respondents, the research assistants also provided interpretation during the participatory workshops and community events that took part in the second phase of the research, and assisted with transcribing and translating the audio-recordings and other evidence gathered during the research process. I carried out and transcribed the staff and consortium partner interviews in English as these interviewees were all fluent in English.

Working with the research assistants therefore provided many positive benefits. However, it also raised a number of ethical and methodological challenges. Further detail on this can be found in Section 3.8 'Reflections'.

3.6 Participatory Workshops and Community Events

As mentioned above in Section 3.4, Participatory Research, often referred to as Participatory Action Research, emerged from the work of activist-academics such as Freire (1970), and involves

"academic researchers … and non-academic co-researchers and participants … working together to examine a problematic situation in order to change it for the better on the participants' own terms" (Kindon et al., 2008: p.90). The 47 in-depth interviews with the TEGAs in Phase 1 of this research revealed aspects of the project that the young women felt positively about, but also areas of the programme that concerned them. One of the concerns that many of the TEGAs shared was the fact that the final results from the TEGA data collection they carried out had not been shared with either them, the respondents who had participated in the TEGA research, or their wider communities. I therefore decided to organise a series of participatory workshops to explore solutions to this issue with some of the TEGAs in Rangpur.

Working with ten of the TEGAs during these workshops led to us co-facilitating some community data sharing events. Collaborating to address their concerns about the uneven distribution of the TEGA data, went some way towards minimising the power relations between myself and the TEGAs and to bring more tangible benefits to their lives than the participant observation and interviews had, thus better meeting anticolonial feminist principles. However, the extent to which the emancipatory ambitions of anticolonial feminist praxis was fully realised in this research was also constrained by a number of factors, including the temporal and financial constraints of my DPhil fieldwork. For a more detailed discussion of these limitations see Section 3.8: 'Reflections' where I reflect on the ethical and methodological limitations of this participatory phase, and also findings Chapter 6: 'Enacting anticolonial feminist data for development' where I discuss the findings from the participatory workshops and community events in detail. I didn't have the time or funding to undergo this participatory action process with all four of the TEGA networks. Therefore, I decided to work with the network that had raised this issue of 'closing the loop' and sharing the findings of research with themselves and their community the most in their interviews, which was the Rangpur network. First, I facilitated an initial participatory workshop with the TEGAs in Rangpur to explore whether they would be interested in taking part in this participatory process, and, if so, how they would like to proceed. This led to a further participatory workshop in which we co-created a data sharing session on child marriage, which was then delivered by the TEGAs to their communities in three community engagement events. More details on dates, purpose and activities included in these participatory workshops and community events can be found in Table 4 below.

Table 4: *Participatory Research Process*

Date	Name	Purpose	Activities
12/10/2019	Participatory Workshop 1	a) share the findings of the TEGA research carried out in Rangpur with the TEGAs b) explore whether the TEGAs wanted to share the findings of their research with their communities and, if so, how they would like to do so (or something else) c) share my research results from phase 1 with TEGAs so that they can share their thoughts (group reflexivity)	• Breakfast • Icebreaker • 'Four corners' activity to share my research findings and hear TEGAs' thoughts • Group diagramming to share memories of previous TEGA research • Poster making activity to share actual findings from TEGA research with rest of group • Group discussion • Post-it note exercise to identify topic to share with community • Next steps discussion
24/11/2019	Participatory Workshop 2	a) To plan and prepare the content for the community engagement events on child marriage	• Icebreaker • Group diagramming on child marriage • Group discussion • Preparation for community engagement – making presentation, writing speeches etc. • Group discussion, next steps
25/11/2019 – 26/11/2019	Community Engagement Events	a) For the TEGAs to share information on child marriage with their communities	• Three community engagement events, one in each 'union' where the ten TEGAs lived • Events involved presentation, speeches by one TEGA from each union, speeches by local officials, and group discussions and questions

Further interviews and participant observation were also conducted during Phase 2 of the fieldwork alongside the participatory action research. The interviews were with the TEGA staff that I had not yet spoken to, some of the respondents in Rangpur (people who had been interviewed by the TEGAs) as well as three of the consortium partners (organisations who had had research carried out for them by the TEGAs). For more information see Table 3 in Section 3.5.2. Partly these interviews took place in the second phase due to logistics – i.e. it made sense to interview the Rangpur respondents when we were in Rangpur – but also because I had to be sensitive in my choice of timing when interviewing the consortium partners or the senior TEGA staff. Asking to interview these people earlier on would likely have caused friction that would have inhibited the participant observation stage. For example, Girl Effect was still having conversations about signing new contracts with the consortium partners during Phase 1, and therefore me going to ask them critical questions then would not have been looked kindly upon. Furthermore, by leaving these interviews until Phase 2 I had a greater understanding of the research context and had a better sense of which questions I most needed to ask.

3.7 Data Analysis

This section describes in detail the data analysis process that I underwent once I had returned from Bangladesh in December 2019. To guide this process I drew upon Carney's (1990 in Miles and Huberman, 1994: p.2) 'ladder of analytical abstraction', as seen below. Whilst there are a number of different actions that a researcher must take in order to make their way up the ladder, there are three key stages: 1) Summarising and packaging the data; 2) Repackaging and aggregating the data, and; 3) Developing and testing propositions to construct an explanatory framework.
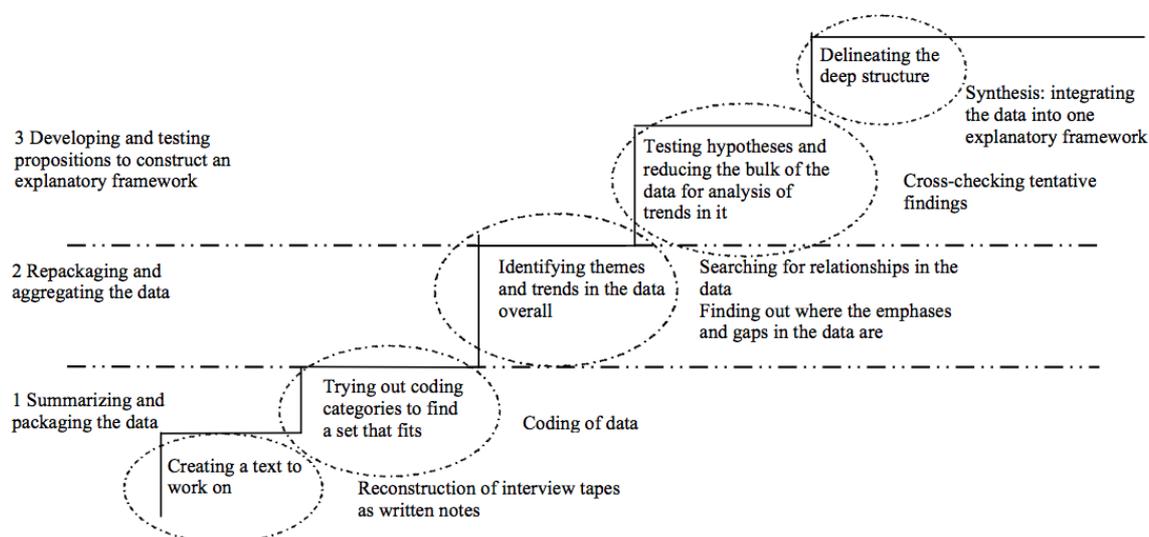
Figure 6: *Carney's (1990) Ladder of Analytical Abstraction (in Miles and Huberman, 1994: p.2)*

3.7.1 Summarising and packaging the data

As outlined in the ladder of analytical abstraction above (Carney, 1990 in Miles and Huberman, 1994: p.2), the first step of data analysis requires 'creating a text to work on'. In my case, this mirrored the diagram above and involved transcribing the audio recordings taken during interviews and participatory workshops as written notes. I had typed up my participant observation field notes into a reflective research diary whilst carrying out the fieldwork. I transcribed the interviews carried out in English myself. However, the 47 interviews with the TEGAs, 19 interviews with the TEGA respondents, and the participatory workshops required transcribing and translating from Bangla to English. My research assistants translated for me as the interviews and workshops were occurring, but I felt it was important to directly translate the participants words, rather than just the verbal summary of them. Therefore, some of the transcriptions and translations were carried out by the research assistants. Due to the number of transcriptions required, however, it became necessary to employ a professional transcription service based in Bangladesh to assist with this stage. I discussed the translation and transcription process with the two research assistants who had been with me in the field in order to understand more fully what might be missed in the translation process from Bangla to English. More details on this process can be found in Section 3.8.3: 'Power and Representation'.

Once the texts were ready to work on, I began to code the data. Analysis can be understood as "the search for patterns in data and for ideas that help explain why those patterns are there in the first place" (Bernard, 2006: p.452). Coding is therefore central to the analysis process (Miles & Huberman, 1994: p.56), in that it involves "breaking the data apart in analytically relevant ways in order to lead toward further questions about the data" (Coffey and Atkinson, 1996: p.29–31).

Saldana (2013) breaks coding down into 'First Cycle' and 'Second Cycle' methods, with one hybrid method in-between. First Cycle methods are "fairly simple and direct", whilst Second Cycle "are a bit more challenging because they require such analytic skills as classifying, prioritising, integrating, synthesising, abstracting, conceptualizing, and theory building" (ibid.: p.58). There is no singular coding method, as because "each qualitative study is unique, the analytical approach will be unique" also (Patton, 2002: p.433).

I decided to first use In Vivo coding due to the anticolonial feminist methodological and theoretical approach of this research. In Vivo coding is "the practice of assigning a label to a section of data …

using a word or short phrase taken from that section of the data" (Given, 2012: p.473). Anticolonial feminist scholars have sought to centre the words of majority world women in order to counter their historical silencing in Western texts and narratives (Mehta, 2000). Charmaz (2006: p.57) argues that In Vivo coding centralises what is important to the participant and helps to "crystallise and condense meanings". Therefore, it seemed fitting to focus first on the participants' words alone before filtering them in other ways. An example of the first round of In Vivo coding can be found below:

2 – TEGA experience		
Motivation to apply	Me: What was it that first motivated you to apply for TEGA? TEGA: Firstly, when the TEGA representative came to our college I did not know anything about this. They also told us that we can earn through this programme. And I can use this money for my education so that it reduces the pressure on my family. Then I got to know about TEGA after going to the training and I like it.	"use this money for my education" "reduces the pressure on my family"

Figure 7: *Example of In Vivo coding*

Whilst carrying out this coding I also made sure to keep a separate document where I jotted down my thoughts as I went along. This helped to highlight what had, or hadn't, stood out to me during the coding process and why.

For the next round of 'First Cycle' codes I decided to use evaluative coding. According to Saldana (2013: p.119) evaluation coding is primarily used to "assign judgements about the merit, worth, or significance of programs or policy". As the TEGA project is a development programme, many of the conversations that I had with the various participants took on an evaluative nature – i.e. what they had liked or disliked about the project and what they would want to keep or change about it. Many of the interview questions that I used during interviews were also evaluative – "What was positive about being a TEGA?", for example. Whilst I did not ask directly about 'data gaps' and 'gender gaps', by asking the project participants what they felt had or hadn't worked in TEGA Bangladesh, alongside my own observations from six months participant observation on the ground, I was able to deduce the extent to which the gender data collected had closed 'gaps', and whether this made a tangible difference to the lives of Bangladeshi young women (i.e. closing the gender gap). This coding cycle was therefore vital for providing answers to the subsidiary research questions 1a and 1b ('In what ways did the TEGA project in Bangladesh close the gender data gap?', and 'In what ways did the TEGA project in Bangladesh close the gender gap?'), as well as providing some

of the answers for Research Question 1 regarding how digital peer-to-peer research with young women in Bangladesh might contribute to closing the gender data gap and the gender gap.

In some ways describing the In Vivo and Evaluative coding as two separate 'cycles' is misleading, as throughout the In Vivo coding process I was already noting patterns and deducing what those might mean for the project and its participants, as well as for my research questions. However, explicitly focusing on the 'positive' or 'negative' comments made in the interviews and workshops that I carried out brought these patterns into focus and provided clarity as to their significance.

An example of the evaluative coding that I carried out can be found below. I used + and – signs to denote a positive or negative point, and colour coded these in green and red respectively to make it easier to locate comments:

Figure 8: *Example of Evaluative coding*

3.7.2 Repackaging and aggregating the data

Taking a step up on Carney's (1990 in Miles and Huberman, 1994: p.2) 'ladder of analytical abstraction', once I had completed these two cycles of initial coding I then began to collate the findings into one central document. This was done in order to search for relationships in the data across the various transcripts, as well as to identify what was emphasised and what was omitted.

I detailed the positive and negative points that were raised in the interviews and focus groups, as well as suggestions made as to how to counter the negative issues, drawing on the Evaluative coding

cycle. I also pinpointed specific quotes, or phrases, from the interviews that encapsulated these points, drawing on the In Vivo coding cycle. An example of this can be seen below:

<u>Positive</u>

- Gained respect from others in the community (interview 18, 30, 34)

Example quote: "People show respect towards me. They point at me and say, "She's a TEGA, she works for iSocial". Whenever I am passing by they ask me about my projects…they even want me to interview them, all this gives me so much pride I just cannot explain it in words" (Interview 18)

<u>Negative</u>

- Trauma from hearing the troubles other girls face (interview 2, 12, interview 17, interview 19)

Example quote: "Each word out of their mouths have given me pain" (Interview 2)

<u>Ideas for Future</u>

- More research with parents (interview 29, 32)

Example quote: "First of all the girls should be asked, so that we can know about their problems. Then, if an adult or elder person could also be interviewed, he/she can convince the family members quite easily" (Interview 29)

Figure 9: *Example of how I repackaged and aggregated the data*

I also went back through the transcripts a third time looking for points that were not overtly 'evaluative' but that stood out to me according to my reading of the literature, and the organisation of points I had already made above. An example can be seen below:

| Me: Do you think TEGA programme could be improved in any way? | TEGA: I think it is good in the way it is progressing. But it is always better if the respondents are provided with something. Then they are more interested. |

Figure 10: *Further example of note-taking during analysis*

In the notes that I kept as I undertook the analysis I wrote:

> I pulled this point out, for example, because it suggests that, in this TEGA's opinion, the respondents that they interviewed were only really interested if they were given gifts or something to make the experience worthwhile to them. This suggests that the interview alone was not enough of an incentive for respondents to take part. It also ties into the broader point of whether TEGA closed gender data gaps. For gender data gaps to be closed, the data collected on young women's lives needs to be accurate. But there is a long-running debate in the literature around incentivising participation, and whether this alters the responses given by participants. However, from an ethical standpoint it could be argued that it is right for participants to be compensated for their time. But this does not mean that there isn't a chance that the findings of the TEGA project have been altered by the act of gift-giving to respondents.

3.7.3 Developing and testing propositions to construct an explanatory framework

From the literature review process I had identified that the 'gender data gap' discourse had a central premise – that closing 'gender data gaps' by gathering new data on women and girls' lives would consequentially lead to the closing of 'gender gaps' in the majority world. Through the data analysis process so far I had identified that the TEGA project was founded on this belief too. Therefore, for the next stage of the data analysis, which required reducing the bulk of the data and creating a central explanatory framework, I brought together all of the findings from the previous stages of data analysis into sub-themes that related to these overarching notions of 'closing the gender data gap' and 'closing the gender gap'. As part of this process I was able to cross-check the tentative findings, and in doing so condense the data into these key sub-themes. The sub-themes identified can be found in Table 5 below:

Table 5: *Key Sub-Themes*

Sub-Themes relating to 'Closing the gender data gap'	Sub-Themes relating to 'Closing the gender gap'
• **Defining gender data gaps** – different definitions of what the 'gender data gap' meant in the context of the TEGA project • **TEGAs as 'qualified' researchers** – TEGAs did not have adequate training/support to collect rigorous data • **Girls talking to girls** – girls not always more comfortable talking to other girls. Also TEGAs interviewed boys/women/men • **Context/confidentiality** – difficulties TEGAs faced in finding private spaces in respondents' homes • **Technology as enabling/disabling** – ways in which technological challenges affected the breadth/depth and therefore quality of data • **Translation and analysis –** TEGAs/respondents not involved in data analysis, shaping the data in particular ways (e.g. local Bangla dialects not being translated accurately etc.) • **Qualitative vs quant data** – preference of different stakeholders involved in TEGA for qual/quant, therefore having different opinions as to whether TEGA adequately closed data gaps	• **Closing the 'gender gap' for the TEGAs** – some evidence of this through earning money, gaining confidence, respect, increased mobility, the ability to challenge gender discriminatory practices, continuing education, access to tech etc. • **Non-instrumental outcomes** – other positives for the TEGAs not related to gender, making friends/having fun • **Uneven impact** – BUT some TEGAS (those from higher income households) benefitted more than others. Also some of the networks received more work than others. • **Precarity** – the work was not consistent, meaning the outcomes weren't either • **TEGA as springboard** – little evidence that TEGA would open up employment opportunities (especially in rural areas). Also programme not designed to be sustainable beyond a few years. Can't complete schooling = limited job opps. • **Closing the 'gender gap' for girls and communities -** most positive outcome for the TEGAs –small/short-term positive benefits for their peers and communities • **Keeping the gap closed –** future of the project/progress made uncertain

A similar condensing and 'themeing' process was carried out for data collected during the participatory action research phase of the fieldwork. Situating these themes within the broader empirical and theoretical literature on anticolonial feminism and data for development is what

provided this research with answers to the research questions. These answers can be found in findings chapters 4, 5 and 6.

3.8 Reflections

> Feminist research in postcolonial contexts has the potential to challenge and/or reproduce power inequalities; the latter is an especially strong risk for Western researchers who represent a physical and historical embodiment of colonialism and neocolonialism (Vanner, 2015: p.1)

As the quote above suggests, there was a 'strong risk' that as a Western researcher carrying out research in Bangladesh I would reproduce rather than challenge power inequalities through this thesis research. It must be remembered, however, that "in an unethical world, we cannot do truly ethical research" (Patai, 1991: p.150). Power relations are inescapable (Collins, 2000). Yet by paying attention to the ways in which they influence research, researchers can make some efforts to minimise their effects, and acknowledging their impact strengthens rather than lessens the validity of research findings (Stanley and Wise, 1983). Reflexivity is the academic practice that "exposes the exercise of power throughout the *entire* research process" (Hesse-Biber and Piatelli, 2012: p.559). Finlay (2002: p.32) defines reflexivity as the "continual evaluation of subjective responses, intersubjective dynamics, and the research process itself". I engaged in reflexivity on a daily basis throughout fieldwork Phases 1 and 2 in my field notes and research diary. I also re-read and considered these notes whilst I was back in the UK in July and August 2019, and as part of the data analysis process from December 2019 onwards. Wolf (1996: p.2) argues that there are three key interrelated dimensions in which power in research is particularly apparent: "1) power differences stemming from different positionalities of the researcher and the researched [...]; 2) power exerted during the research process, such as defining the research relationship, unequal exchange, and exploitation; and 3) power exerted during the post fieldwork period — writing and representing". Accordingly, this section on my reflections is divided into three parts, with each part addressing one of these three dimensions of power in research in relation to my thesis.

3.8.1 Power and Positionality

The concept of positionality, as defined by Alcoff (1988), refers to how one's position within a continually shifting web of power relations shapes our identity. Gender, race, class, (dis)ability are socially constructed power relations based on tangible physical realities that vary historically and

socioculturally. Therefore, a person who is fundamentally disempowered in one location, or position, at a particular time may find themselves with greater power elsewhere (ibid.). Crucially, our positionality will affect how we engage with the world and how the world engages with us.

I came to this research as a cis-gender woman. Before leaving for Bangladesh I reasoned that my female identity could enable my female research participants, in particular the TEGAs, to feel more comfortable talking openly to me. However, I am not only a woman – I am also a white, middle-class, British woman. This particular 'position' has enabled me to pursue a privileged path in academia. Yet as Naples (1996) notes, ones "outsiderness" or "insiderness" during research is fluid and relative. My positionality shifted throughout the research process depending on where I was and with whom I was interacting, and these aspects of my identity afforded me varying degrees of power and influence depending on this context.

Whilst at many points throughout the research process I viscerally felt my white middle-class Western academic identity positioning me powerfully as "author, authority... [the] colonizer" (hooks, 1990: p.208), it did not always feel this way. During participant observation, for example, my positionality shifted across the different research sites to give me lesser or greater power. As discussed in Section 3.3 'Finding the 'field' and negotiating access' my academic identity marked me out as a possible threat to Girl Effect's organisational reputation. As Kathryn Moeller (2018: p.49) writes of her experience researching Girl Effect when it was part of Nike, "access … was always negotiated, tenuous, and never uniform. There were institutional spaces that were very uncomfortable … and others that were surprisingly familiar". I felt in my conversations with members of the Girl Effect headquarters that I had to work to maintain access, presenting myself and my research in a professional manner. As Hugh Gusterson (1997: p.115) surmised, "participant observation is a research technique that does not travel well up the social structure". Whenever I was in the Girl Effect head-quarters I felt that I had to take care over my words and body language, to share 'actionable insights', but not theoretical and philosophical concerns through fear that if I 'said too much' then I would have my access revoked before the end of the data collection period. I always felt on edge of being told to shut my research down, and powerless in many ways to the institutional might of the organisation. This was in spite of the fact that the entire TEGA team in London was made up of middle-class, white, university educated women like myself.

By comparison, when I arrived in Dhaka my academic status, and in particular my affiliation with the University of Oxford, was received differently. As I had been given permission by the London headquarters to come and spend time here, and thanks to the peerless hospitality of Bangladeshi culture, I was welcomed almost unreservedly. I was presented to the office as a visiting researcher

from the University of Oxford and was given a desk to sit and work at. I was the only White, non-Bengali person in the entire office. At lunchtime and teatime I was always invited to sit with different groups and to talk about my impressions of Bangladesh, and what it was like studying at Oxford University. I had a sense of being 'out of sight out of mind' for the London team, who despite saying they would regularly check in with me (or indeed on me) rarely asked for updates or monitored my day-to-day movements. As Moeller (2018: p.49) also notes, this "ability … to occupy time and space while continually directing my gaze at the Other – was a reflection of power" and "my own privileged position". Would a Bangladeshi PhD student have been allowed to 'hang around' in the office and have the level of access that I had?

In my interactions with the TEGAs and their respondents whilst conducting the interviews, participatory workshops and community events I also felt that my positionality afforded me greater power and privilege than I was comfortable with. The TEGAs, the respondents and their communities expressed a great deal of excitement and happiness that I had come to speak with them, but this was inflected with neocolonial power inequities. One of the TEGAs said that my visit to their home would 'raise their status' in the neighbourhood. Some of the TEGAs kept saying how 'beautiful' my white skin was, and they all asked excitedly for selfies with me taken on their TEGA phones. One of the TEGAs presented me with a paper heart that she had crafted specially for me with 'I love you' written on it. Curious neighbours gathered in crowds outside, trying to peer in and take a peek at the 'bideshi' who had come to their village or neighbourhood. This happened to a greater degree in the rural areas rather than in Dhaka. I was the first White person to have stepped foot in some of the villages where the TEGAs lived. In all of the homes bar one or two the TEGAs and their families went to great lengths to prepare or procure sweets and snacks which they presented to me following the interviews. Whilst I made it clear verbally, and also in the information letter and consent forms given to participants, that I was a PhD student and not a representative of Girl Effect, the TEGAs and their families would still ask if I could help them to keep the programme going so they could keep receiving the TEGA money. As Wolf (1996: p.3) argues, "first world women" may experience multiple levels of difference when working in "third world countries", and that "power difference cannot be altered if one is studying marginalized or poor people". In some ways I felt pleased that the TEGAs and their communities felt so positive about my visits. However, I also found this undeserved adulation, which was at least in part due to my skin colour and country of origin, rather uncomfortable. I was concerned that it positioned me overly powerfully in my interactions with the TEGAs. In particular I worried that they might not feel able to refuse the interview, even if they did not want to take part.

As well as the power hierarchies that came about as a result the different positioning of myself and the research participants, I was also concerned about the different positioning of the research participants and my research assistants. As Rakiba and Tasnia were both middle-class, university educated young women from Dhaka I was aware that the TEGAs, particularly those living in rural areas, may feel intimidated by them, and that this could create barriers to conversation. In Wolf's (1996: p.3) words "postcolonial feminists working in their own countries experience their class and educational privilege, at the very least". Whilst the different social positionings of the TEGAs and the research assistants will have undoubtedly had an effect on the data that was collected, they both approached the research with empathy and self-awareness, and established strong rapport with the TEGAs throughout all of the interviews. Indeed, at times I worried that their care and concern for the TEGAs and other research assistants left them emotionally harmed by some of the stories of hardship that we heard. Cognisant of Meth's (2003: p.155) statement that "academics may neglect or overlook the emotional costs of research on assistants and interpreters" I sought to speak openly about my own distress and guilt regarding some of the testimonies we had heard, and to offer the space and time for us to work through that supportively together.

Whilst these ethical and methodological tensions and challenges that stem from being a white Western woman doing research with Bangladeshi young women are not easily overcome, I had hope that the participatory methods utilised in the second phase of the fieldwork might go some way towards lessening their negative impact. As discussed in Section 3.6 participatory research re-positions the 'researcher' and 'researched' as co-creators. Yet whilst in theory this should negate unethical power relationships in research, in practice achieving this is rather more complicated. Further details on this can be found below in Section 3.8.2 'Power and the Research Process'.

3.8.2 Power and the Research Process

Whilst the previous section discussed the "power differences stemming from different positionalities of the researcher and the researched", Wolf (1996: p.2) argues that power can also be "exerted during the research process, such as defining the research relationship, unequal exchange, and exploitation". Yet despite my anxieties about the ways in which my privileged position had afforded me access and authority in the research that people in a less privileged position may not have been, thus further entrenching unequal power relations, this is not how it felt on a day-to-day basis during the research process. For example, I became good friends with the TEGA team in Dhaka. We would often meet up at the weekend or in the evenings after work, as well as experiencing the work trips to visit the TEGAs together. I was invited to their family homes for dinner, and, as mentioned in Section 3.5.1, I also tried to assist where I could with day-to-day project tasks when

the team were stressed and struggling with their workload. This not only gave me in-depth insights into the internal workings of the TEGA project, but also meant that I felt I was 'giving back' something, however small, to the TEGA Dhaka office team. This reciprocity, which feminist researchers have argued is essential for ethical research (DeVault, 1990; Oakley, 1981; Ribbens, 1989), felt just in light of the help, support and friendship that they gave me. They went out of their way to explain the project to me, to show me round the city of Dhaka, and to help me plan my trips to see the TEGAs. Assisting the team in Dhaka with small tasks further generated a feeling of goodwill amongst myself and the team, building stronger ties and opening up wider avenues of discussion and debate during the participant observation and my one-to-one interviews with them.

Yet it could be argued that these friendships between myself and the team also present an ethical dilemma, no matter how 'good' or 'reciprocal' it felt at the time. As Pamela Cotterill (1992: p.597) argues, there are "potentially damaging effects of a research technique which encourages friendship in order to focus on very private and personal aspects of people's lives". It's true that I did write about my time hanging out with the TEGA team in my research diary, and that our informal chats helped me to gain a greater understanding of the context in which TEGA was operating. Does this mean that my research occupies "the dangerous ground between intimacy and betrayal" (Visweswaran, 1997: p.614)? Furthermore, in publishing a critical account of the TEGA project, based in part on the criticisms that the participants shared with me, would my research have negative repercussions for their careers and future relationships with Girl Effect? However, as Bornstein (2014: p.645) argues, "NGOs are … a locus of study" through which "to explore theoretical questions". I therefore reasoned that my research can be conceived of as a case-study representing the wider issues of the datafication, the 'girl-ing' of development and the corporitisation of the aid sector (Moeller, 2018), rather than a personal or malicious take-down of a single project and the people working within it.

Furthermore, whilst I still felt some uneasiness at Stacey's (1988: p.23) observation that "[t]he lives, loves, and tragedies that fieldwork informants share with a researcher are ultimately data, grist for the ethnographic mill", I also recognised that the research participants were not totally powerless in the participant observation research process. My lack of fluency in Bangla meant that the participants could shut me out linguistically if they wished to. Whilst this does mean that the participants had some power over the research process, which is ethically beneficial from an anticolonial feminist perspective, my linguistic shortcomings did limit the data I was able to gather during participant observation. Although most meetings and events were held in English (and I had a translator for those that weren't) the everyday conversations going on in the office were usually in Bangla. However, as Guest et al. (2013: p.109) argue "the key to dealing with the issues surrounding being

a foreigner is to use the strengths of being this type of outsider, mitigate the weaknesses of this role, and to be honest about the limits it may impose on your data". I learnt to utilise my 'outsider' status and newness to the project to ask more probing questions then I would perhaps have been able to otherwise, picking up on familiar Bangla words and phrases to enable me to piece together parts of these conversations and direct my questioning.

As I had my research assistants with me for the interviews with the TEGAs and respondents these research participants weren't able to exert power over me in the same way in order to "define the research relationship" (Wolf, 1996). However, what they could do was avoid answering questions, saying 'I don't know' for example, or answer untruthfully, or refuse to elaborate as much as I might have hoped. It is for these reasons that Letherby (2003: p.116) argues that it is "it is important not to over-pacify respondents within the research situation". Some of the interviews with the TEGAs were far shorter than others. The shortest interview was 25 minutes long, whilst the longest was over an hour and a half. It is hard to say for sure whether this was because the TEGAs whose interviews took less time felt shy – perhaps enhanced by the crowds of neighbours and onlookers waiting outside – or actively wanted to avoid speaking with me as much as possible. Certainly, the logistics of finding a space where the TEGAs felt comfortable speaking to me proved challenging. Many of the TEGAs lived in single room homes constructed of wood with corrugated metal rooves. Some lived in houses made of bricks with a few rooms, but they often didn't have doors and were multigenerational houses with grandparents, parents and children all living together in a relatively small space. Privacy was therefore difficult to attain. Luckily, the District Officers and Field Officers who accompanied me for the interviews offered to speak to the families outside so that I could conduct the interview with the TEGAs inside free from interruptions. However, sometimes family members would wander in to sit and listen to the interviews. The District Officer would have to come in and usher them out, explaining that privacy was required. Being able to visit the villages where the TEGAs did their work in order to interview them gave me a greater contextual understanding in which to situate the words that they shared with me, discussed in results Chapters 4, 5 and 6. Similar concerns about privacy also affected my interviews with the project staff in Dhaka. For ease, they all requested that I interview them in the office but in a separate room. I was happy to make it as easy as possible for them to participate in the interviews amongst their busy schedule, but was concerned that they might not wish to share criticisms with me in case others in the office overheard.

Despite these concerns about how the research context may have affected the validity of my research findings, both the staff, TEGAs and respondents did share criticisms as well as praises of the TEGA project. This could be in part due to the fact that the staff and the TEGAs had some level of training

in research practices and therefore trusted me when I promised to anonymise their responses and not share their data with others. It could also have been that the original project completion date was fast approaching, and there was therefore less risk for their employment prospects in sharing their true thoughts. Lastly, the interviewees candour could also be due to the fact that they told me that they enjoyed the experience of being interviewed. Opie (1992) argues that interviewees can benefit both from having the opportunity to contribute towards a positive common goal, but also that they can find the experience of talking to someone therapeutic in itself. In Skeggs's words (1995: p.81), interviewees can benefit from "being given an opportunity to be valued, knowledgeable and interesting". The TEGA staff told me that they enjoyed having the space to think and speak more deeply about the project, but it was the TEGAs and the respondents that were particularly effusive and enthusiastic about having the opportunity to be the interviewee rather than the interviewer and have their thoughts listened to.

These reflections gave me hope, therefore, that the participant observation and interviews undertaken for this research were not entirely "exploitative" interactions of "unequal exchange" (Wolf, 1996), in which I freely extracted data from the research participants for my own benefit. Yet I still felt that I could do more to minimise the power relations inherent in the research process and bring greater benefits to the participants as well as myself, thus better meeting the two core principles of anticolonial feminist research. It was these reflections that led to me implementing the participatory workshops and community events in the second phase of the fieldwork. In the participatory research process the participants take the lead whilst the researcher plays a more facilitative role (Manzo and Brightbill, 2007). By supporting the TEGAs to address one of the concerns that they had raised during our interviews – that the findings of their data collection were extracted rather than being returned to the community – surely my thesis research would shift further towards enabling the TEGAs to partake in "defining the research relationship" rather than the research being purely directed by me, and thus it could be considered a fair and equal process' rather than an 'exploitative' and 'unequal exchange' (Wolf, 1996)?

One of the positive aspects of this more participatory research process was that it enabled reflexivity to also become a more participatory endeavour. Reflexivity as an individual endeavour has its limitations. In part this is because "systematic self-knowledge is not easily available" (Holland and Ramazanoglu, 1995: p.133). As Grosz (1995: p.13) argues, "the author's intentions, emotions, psyche, and interiority are only partially accessible to the readers, in fact they may be only partially accessible to the author herself". Self-reflexivity also centres the thoughts of the researcher, rather than those of the participants (Lal, 1996: p.206). Kobayashi (2003: 348: p.19) therefore states that "[w]hile reflexivity is an important, and some may say essential, aspect of recognising the difference

between the studier and the studied and even in some cases of taking moral responsibility for that difference, indulgence in reflexivity is ironically the very act that sets us apart". However, during the participatory workshops with the TEGAs I was able to facilitate group discussions about my emerging research findings, thus making reflexivity a group activity. This will have gone some way towards lessening the exploitative nature of this research.

Yet it cannot be ignored that the participatory research process itself was initiated by me, rather than the TEGAs. Cahill (2007: p.299) writes that "we need to be wary of broad applications of the term 'participation' because it often masks tokenism and the illusion of consultation that may, in fact, advance dominant interests". The TEGAs may have chosen to focus on child marriage, and to hold community engagement events to share information with their communities, but these conclusions arose from structured games and discussions that I had planned, even if they did build on comments that the TEGAs had made in their interviews. There were other concerns that they shared during my interviews with them, such as worries about money, lack of access to education, healthcare, employment, issues within their personal relationships, corruption and lack of local services. Within my limited financial and temporal budget I chose instead to pick one of their concerns that I felt I could reasonably facilitate some sort of participatory solution to based on my own belief that it was better to 'do something' rather than nothing. Perhaps this belief that I should 'do something' was infact more of a balm to soften my own sense of guilt than a purely selfless act in support of the TEGAs. At the end of the day this PhD research was initiated by me and will benefit me the most in the long-run, as this qualification will open doors that I could not otherwise walk through, and that remain shut to many. There is a long history of white Westerners travelling to the majority world to further their own lives, beginning in the colonial era (Trinh, 1989: p.65). Enslin (1994: p.545) states that:

> In a world shaped by gross inequalities of gender, race, caste, class and geography, research done on the lesser privileged, by and for the ultimate benefit of the privileged, is simply not ethical. We gloss over this inequality by claiming to do research with our subjects. We pay lip service to collaboration and dialogue, and mask the very real differences among us and the ways that our research continues to buttress them.

Perhaps then, I reflected, this thesis research simply reinforced the centuries old power imbalance between white Western so-called 'experts' and the majority world 'subjects' of Western research, as well as furthering my own life more than the lives of those I claimed to 'co-create' with? What is clear is that when it comes to participatory approaches "we should have no illusions that they present straightforward solutions to the ethical dilemmas surrounding research, to the imperative of making

research have real impacts, or to the tensions between critical action and academic research" (Pain and Francis, 2003: p.52). Wilkinson and Wilkinson (2020: p.219) highlight, for example, that whilst participatory research is founded on the principle of knowledge co-creation with and for research participants, "in reality, participants are most often involved in data collection, less so analysis … and less frequently still dissemination". No matter how participatory aspects of the data collection part of my thesis were, there was limited participation of the participants in the analysis and I alone am writing up the results. Therefore I retain significant power in the research (Foster, 2007: p.368).

Following on from this point, the next section explores the third dimension of power in research that Wolf (1996) highlighted – the way in which analysis and writing up of research data can further entrench hierarchies of power through representation. This section also returns to the issue raised above of whether doctoral research, even that which is driven by anticolonial feminist principles, can ever be fully ethical.

3.8.3 Power and Representation

There have been "numerous debates about the ethics and politics of 'representing the other'" (Gillies and Alldred, 2012: p.49) amongst anticolonial feminist scholars, particularly postcolonial feminists. Whilst there is no clear answer to the dilemma of representation, from a feminist postcolonial perspective it can be argued that seeking the pure 'truth' or 'authentic' testimonies from research participants is not only a practical and philosophical impossibility, but also an ethical minefield. As feminist postcolonial theorist Rey Chow (1994: p.126) observed, the desire of Western researchers to capture the pure 'authenticity of the native' perpetuates 'Othering' and essentialist colonial tropes even if done with good intentions. Instead, postcolonial feminist research recognises that 'true' objectivity is an unobtainable myth (Wheatley, 1994). After all, there is no 'authentic' majority world girl existing somewhere beyond discourse, waiting to be uncovered and brought into the realm of public knowledge (Chow, 1994: p.126). Instead, it is through the very act of speaking language, including within a research project, that subjectivity is formed (Kristeva, 1986: p.95-9).

In the case of this thesis research, however, the issue of representation was further complicated by the fact that I did not speak the language that most of the research participants spoke and had to rely on my research assistants for interpretation and translation. Bujra (2006: p.172) writes that "translation is more than a technical exercise; it is also a social relationship involving power, status and the imperfect mediation of cultures". For feminist postcolonial theorist Spivak (1993: p.179) language is closely linked to agency, as it is what "allows us to make sense of things, of ourselves". It is for this reason that she argues that ethically-minded researchers should "learn well one of the

languages of the rural poor of the South" so that the subaltern can define themselves whilst the researcher listens, rather than the other way around (2002: p.18). Unfortunately, I was unable to learn fluent Bangla within the time constraints of my PhD timeline (although I made an effort to learn key words and phrases) and was therefore unable to "lay the groundwork for a two-way conversation and non-exploitative learning" (Kapoor, 2004: p.642).

From an ethical perspective this is an irresolvable shortcoming, and from a practical perspective my analysis will be undoubtedly hampered by my inability to communicate and interpret directly. But even my research assistants' translations will have been shaped by their own positionality, despite their fluency. What Derrida (1991: p.244) describes as the "inadequation of one tongue to another" means that they will have had to make certain choices over how to translate my English questions into Bangla, and Bangla responses into English. At times they may have decided to translate as close to the exact words as possible – in others they may have decided instead to try to convey the meaning of what I or my research participants were getting at. Far from passive conduits, research assistants involved in interpretation are "actively participant intermediaries making judgements which may transform the message received" (Bujra, 2006: p.175). Temple and Edwards (2002: p.11) state that research carried out in this way "becomes subject to 'triple subjectivity' (the interactions between research participant, researcher and interpreter), and this needs to made explicit" through "rigorous reflexivity".

I made sure that my research assistants and I had a post-interview discussion whilst zooming along in an 'auto' (autorickshaw) to the next interview. We also would have a reflective discussion at the end of each day in the field over dinner. As Gent (2014: p.52) also found in her research on sustainable energy in Nicaragua, doing this "aided triangulation in that we could challenge each other's understandings and interpretations of the interview". I also asked the research assistants to assist with transcription and translation of the audio-recordings of the interviews. I made sure throughout this process to continue on with our reflective discussions, making a note of these in my research diary and observing any differences in choices of words, or phrases, between the various transcriptions.

The analysis undertaken for this thesis research was not a solely solo activity, therefore, as I was able to include my research assistants and also discuss my emerging findings with the TEGAs during our participatory workshops. Yet as succeeding at the DPhil requires that I write the final thesis document alone, I still retain the power over the final representations of the research and the participants. My positionality (Section 3.7.1) not only influenced the questions I chose to ask and how I decided to go about answering them (3.7.2), thus shaping the data that was collected during

this process, but will also have influenced how I then went on to analyse and write-up the findings (England, 1994). As such, my being the sole author and disseminator of the research findings, despite the participatory elements of the research, demonstrates how "academic power and privilege can become omnipresent" in the post-fieldwork stage (Muhammad et al., 2015: p.1055).

As I touched upon at the end of the previous section (3.8.2), the process of engaging in doctoral research may be in some ways incompatible with fully achieving the principles of anticolonial feminist research – to minimise power relations, and ensure tangible positive benefits for the majority world women participating in the research. In the unequal world that we live in, carrying out my thesis research in the majority world as a white, Western, middle-class, female DPhil student was always going to bring up ethical tensions and challenges. Yet what is the alternative – to only do research with other white, middle-class British female DPhil students? This proposition is not only morally dubious but also practically problematic. As Ramazanoglu and Holland (2002: p.115) emphasise, "the shifting complexity of identities, and the complex intersections of social divisions, make confining emancipatory research to insider knowledge difficult to achieve [...]". Where do we draw the line when defining the 'us'? The multiple and ever shifting intersectionality of peoples' standpoints makes finding a manifest 'us' highly improbable (Alcoff, 1991). In the words of Ang-Lygate (1996: p.54) "it presupposes that complex realities can be reduced to simple binary equations". Ignoring this could prove unethical if it leads to a forced consensus, masquerading as equal representation (Patai, 1991). Furthermore, seeing as the majority of academics are White and middle class, is it really ethical to suggest that we only represent 'us'? Wouldn't that lead to a dearth of insights from those differently positioned, those less privileged, and those seeking social justice (Rai and Liddle, 1993)? Vanner (2015: p.2) corroborates this point, declaring that:

> [N]eglecting and ignoring postcolonial contexts because I am not a member of a community directly and negatively affected by colonialism and neocolonialism similarly reflects and reproduces my privileged position without drawing attention to or challenging unequal and oppressive structures.

Retreating from representing others and remaining silent are not devoid of responsibility, as they are still active and privileged choices that affect the lives of others (Fine, 1994: p.81). Alcoff (1991: p.17) writes that the decision not to carry out research with those differently positioned to oneself "... may result merely in a retreat into a narcissistic yuppie lifestyle in which a privileged person takes no responsibility". Taking these arguments about representing 'Others' into account, it is not surprising for Brown (1996: p.129) to argue that "on an ethical level, it's probably more justifiable than ignoring them".

3.9 Conclusion

There are no easy solutions to the ethical and practical dilemmas that DPhil research in the majority world as a White, Western, middle-class woman presents. Even anticolonial feminist theory can only provide tools to navigate contention, enabling researchers to produce research that is as ethical as possible. It cannot remove these challenges completely.

This methodology chapter first outlined what anticolonial feminist research entails, highlighting the two key principles shared by anticolonial feminist academics: to minimise neocolonial and gendered power relations, and to ensure that research benefits majority world women in tangible ways. It then moved on to describing in detail how the research was designed so that it could meet these requirements whilst also answering the research questions. This included giving an account of how TEGA Bangladesh came to be the field site and how access to the project was negotiated. I also explained why the research methods of participant observation and interviews were chosen for the first phase of the fieldwork, and how this then shifted to participatory action workshops with the TEGAs and community events in the second phase of the fieldwork, as part of an overarching 'participatory' research design. This shift came about as a result of the reflexivity that I committed to throughout the fieldwork. The final section of this methodology chapter therefore discusses the reflections that I had and am still having about my DPhil research. It was through reflecting on the ways in which the research had, and had not, been able to live up to the expectations of anticolonial feminist research by lessening power relations and benefitting the young women involved in the research that I decided to take a more participatory approach. However, as the reflections section discussed, utilising participatory methods was not enough to overcome the power inequalities that this research was entrenched within and to ensure that the research benefitted the participants as much as it has benefitted me. Cooke and Kothari (2001: p.15) argue that the only way to address this dilemma is not to hold up participation as the 'panacea', but instead to commit to "rigorous reflexivity" and "a level of open-mindedness that accepts that participatory development may inevitably be tyrannical and a preparedness to abandon it if this is the case". However, as the reflections chapter of this thesis has argued, drawing on anticolonial and feminist methodological insight, all research is limited in what it can achieve by the neocolonial and gendered structures of power in which we are all imbricated. Therefore, rather than abandoning any particular research methods, committing to reflexivity so that the ways in which research is methodologically and ethically contentious can be made visible and known is the way forward. Postcolonial feminist scholar Spivak (1990: p.9) describes this process as "unlearning one's privilege as loss". In conclusion, therefore my privilege means that my DPhil research has methodological limitations.

However, in recognising that this is the case I will have done more to address power relations in academic research, and strengthen the validity and ethicality of my research, than if I had ignored this 'loss' and claimed my research to be boundless rather than unavoidably limited.

Chapter 4: Closing the gender data gap

4.1 Introduction

In recent years the 'gender data revolution' has moved to the centre of the international development world stage. As discussed in the literature review (Chapter 2), the argument made by the UN, World Bank, the Gates Foundation and others is that "progress on gender equality depends on our collective ability to close 'the gender data gap'" (Fuentes and Cookson, 2020: p.881). The premise of the gender data gap discourse is that formulating relevant strategies to overcome gender inequalities is being held back by a lack of data on women's lives. Therefore, the fact that "we know less about women's lives than men's in statistical terms" (ibid.) is not simply a matter of data inequality – the lack of a "solid evidence-base to guide development policy" is considered to be directly linked to continuation of gender inequality globally (Buvinic, Furst-Nichols and Koolwal, 2014: p.1). This discourse therefore constructs a reality in which gender equality is contingent on rigorous, complete gender data – i.e. that 'closing the gender data gap' necessarily precedes 'closing the gender gap'.

Girl Effect's TEGA (Technology Enabled Girl Ambassador) project is exemplary of the 'gender data gap' logic. On the project homepage Girl Effect (n.d.) writes that "accurate data and insights are required to understand the challenges facing girls", and that their "ground-breaking girl-led research solution" enables "safer, faster, more scalable and authentic research" and "empowers adolescent girls" to make this a reality[9]. In stating that they address the 'global gender data gap', whilst also empowering the girls it trains to be TEGAs and the girls who benefit from better designed interventions, Girl Effect perpetuates the overarching gender data for development discourse – that 'closing the gender gap' first requires 'closing the data gap'.

Accordingly, the first findings chapter of the thesis also starts by exploring the notion of 'closing the gender data gap' before then moving on to considering 'closing the gender gap' in Chapter 5. This notion of 'closing the gender data gap' is examined through critically analysing empirical data collected with the participants of the TEGA Bangladesh project through an anticolonial feminist theoretical lens. In doing so, this chapter addresses the first supplementary research question:

1(a) In what ways did the TEGA project in Bangladesh close the gender data gap?

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[9] The home-page has since been updated, but a link to the earlier version can be found here https://dev2.girleffect.org/our-work/tega/

Within the chapter the findings presented paint a complex picture as to whether the TEGA project in Bangladesh can be said to have closed gender data gaps. For example, Section 4.2 examines the discrepancy between Girl Effect and the consortium partners' choice of 'gender data gaps', and those that the TEGAs felt needed 'closing'. Section 4.3 then explores the training given to the TEGAs, noting that the TEGAs and the project staff in Bangladesh all felt that they needed more training in order to collect more rigorous, in-depth data that properly 'closed gaps', whatever those gaps might be. Section 4.4 contemplates the power relations between the TEGAs and those they interviewed, which complicates Girl Effect's (n.d.) hypothesis that 'girls speaking to girls' "unlocks … open and honest conversations". Section 4.5 builds on this observation, by reporting on the difficulties the TEGAs faced in finding private spaces in which to conduct data collection confidentially. Section 4.6 then considers the ways in which the 'digital' aspect of the data collection – i.e. the fact that all the data was recorded and processed via smartphones – actually constrained the TEGA's ability to build rapport and probe deeper into sensitive issues with their respondents, making data collection less robust. Section 4.7 next discusses challenges that arose in the accurate translation of the TEGA data and reflects on how the exclusion of the TEGAs and the respondents from the processing of their data may have shaped it in particular ways. Lastly, Section 4.8 examines how the different stakeholders involved in the project had contrastive opinions on whether large-scale, quantitative data, or smaller-scale qualitative data, is required to 'close gender data gaps'. Research will always be beset by methodological challenges. In exploring the findings outlined above, this chapter demonstrates how Girl Effect's TEGA project in Bangladesh is no exception. This not only raises questions about how this particular intervention was designed and delivered, but also the wider belief held, and invested in, by many other development organisations – that the 'gender data gap' can ever be unequivocally 'closed'.

4.2. Who defines gender data gaps?

> We always collect data in response to a research brief with objectives and questions that Girl Effect wants answered or the external partner that we are working on behalf of.

> Laura Scanlon, Founder and previous Director of TEGA (in Ehidiamen, 2017)

In order to be able to critically assess the extent to which TEGA succeeded in closing the 'gender data gap', it is first necessary to identify what the gender data gap is. This entails considering not only how the gender data gap is defined, but also who defines it.

There is no universal definition of 'the gender data gap' despite the widespread usage of the term. The UN Statistics Division (2013) argued that data was missing for one-third of the 52 UN indicators tracking progress on gender equality at that time. On the other hand, Data2X (Buvinic et al., 2014) identify 28 different 'policy-relevant 'data gaps across five global domains – health, education, economic opportunities, political participation and human security. A later report written by Data2X (Buvinic and Levine, 2016) instead discussed the 14 SDG indicators for gender equality, finding that data is only widely available for three of these. It is clear, then, that the 'gender data gap' is defined in a variety of ways by different development organisations.

The TEGA project, too, had its own unique understanding of the 'gender data gap'. The agreement between Girl Effect, their Bangladesh-based in-country partner iSocial, and the project funder DFAT (The Australian Governmental Department of Foreign Affairs and Trade) stipulated that the TEGA project would involve working with five partner NGOs or 'consortium partners'. As the quote above demonstrates, Girl Effect identified the research topics and questions, or 'data gaps', with these NGO partners, and then the TEGAs were sent out to collect the data. The five NGOs that Girl Effect worked with in Bangladesh and the 'data gaps' that they selected are summarised in Table 6 below:

Table 6: *TEGA 'Data Gaps'*

Consortium Partner[10]	Data topic	Specific data gaps identified
1	Economic empowerment	• What kinds of employment opportunities are available to girls? • Which economic opportunities do girls value? • What are the factors either limiting or supporting girls' inclusion in alternative income generating activities? • How might alternative income generating activities delay early marriage?
2	The sexual and reproductive health needs of unmarried girls	• What awareness and knowledge of sexual and reproductive health do unmarried adolescent girls have? • What are the gaps in unmarried adolescent girls' awareness and knowledge of sexual and reproductive health? • What are unmarried adolescent girls' needs with regards to sexual and reproductive health information and services?
3	The nutritional needs of RMG (ready-made garment) workers	• What current knowledge do RMG workers have regarding nutrition, hygiene and sanitation? • What are RMG workers' current practices regarding nutrition, hygiene and sanitation? • What are RMG workers' nutrition, hygiene and sanitation needs?
4	Sexual harassment	• What are girls' experiences of sexual harassment? • What are girls' coping strategies to combat sexual harassment? • What are the support needs for girls regarding sexual harassment?
5	People's perceptions and knowledge of digital financial services	• What are adolescent girls' financial behaviours (both digital financial service users and non-digital financial service users)? • What are the saving and spending habits of adolescent girls' influencers (family, husband, in-laws etc.) • What level of economic independence do adolescent girls possess? • What are the push and pull factors that would encourage adolescent girls to partake in digital financial services?

The 'gender data gaps' that the TEGA project worked to close were therefore not selected at the grassroots level, with the TEGAs and the young women leading the process, but at the top of the organisational pyramid. This does not mean that the 'gender data gaps', or research topics, identified

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10 Names removed for anonymity

by the those higher up the project ladder were not of import. For example, Sumi, one of the TEGAs, told me how much they had learnt from researching economic empowerment:

> I really liked the one… the girls' earnings one … we got to find out a lot of things … I went to interview this lady – she's the same age as I, but she's married – and the way she was earning to pull the family along – I couldn't have dreamed of it. Just like my Mum, she was fighting tooth and nail to make a living. (Sumi)

All of the TEGAs told me that they had learnt new things, or 'closed' gaps in their own knowledge, from carrying out data collection for the TEGA project. During the participatory workshops that ten of the TEGAs and I collaborated on, they also said that they were happy that the topics they had been assigned to collect data on had been researched. And yet, there were also other topics, or 'data gaps', that some of the young women also felt should have been researched, from child labour, to girls' hopes and dreams for the future:

> Me: Suppose they told you today that you could choose the topic you researched – if you were given such an opportunity, which would you choose?

> Nazma: I would want to work on education for girls

> Me: Why that topic?

> Nazma: Many girls want to be educated, they want to study. Take my sister for instance. She is so eager to study but because of my parents it's not possible. So, I would like to do research on education.

This point that Nazma raises, about there being other data collection topics worthy of research, was corroborated by the ten TEGAs taking part in the participatory workshops, too (for more on this see Chapter 6). Together these findings show, that when critically examining whether the TEGA project, or indeed any other gender data initiative, has succeeded in 'closing gender data gaps', it will depend on whom one asks. Different people will have different opinions as to what comprises a 'gender data gap', and the significance of said gap. Therefore, whilst the consortium partners who selected 'gender data gaps' relevant to their work may feel that TEGA has succeeded in closing gaps, the TEGAs, who had other data priorities, may not. This issue of 'who defines data gaps', and the implications that this has for achieving the goal of 'closing data gaps', is not exclusive to the TEGA project. For example, Arora's (2010) case-study of a medical diagnostic software project in the

Himalayas found that the majority of the illnesses that the participating villagers wished to report, such as 'chronic hunger', 'long hours in the field' and 'gender bias' fell outside of the medical categories that the medics who had designed the data collection software had thought would be relevant. In a later paper, Arora (2016: p.1687) draws on these findings to argue that "to more effectively instrumentalise … data for the benefit of the poor, we need to incorporate these … users at the initial stages of … design".

Some of the TEGAs wanted to research topics that TEGAs in other areas had carried out. For example, some of the TEGAs in the Rangpur and Bogra networks said that they wanted to collect data on young women's experiences of sexual harassment. However, the TEGAs in Dhaka and Jessore had been assigned the sexual harassment data collection task for Consortium Partner 4, and so had been able to collect data on this issue. Each of the five 'gender data' projects were carried out by, and in, only one or two of the four TEGA networks in Bangladesh. This is partly because the consortium partners only wanted data from the areas of Bangladesh in which they were running their programmes, and also because of concerns about the time and resources required to collect, analyse and write up data from all four networks for each research project.

By not deciding which 'gender data gaps' the TEGA project should address in participation with the TEGAs and respondents in the different areas, it can be argued that the data collected to fill them is less representative than it could be of these young women and what matters to them. Instead, this gender data represents, to a greater extent, the perceptions of these young women and their needs that are held by Girl Effect and other large development organisations. Postcolonial feminist scholar Chandra Talpade Mohanty (1988: p.334) in her seminal piece 'Under Western Eyes' rails against the way that Western feminist texts have "discursively colonize[d] the material and historical heterogeneities of the lives of women in the third world, thereby producing/re-presenting a composite, singular "Third World Woman". As feminist geographer Joni Seager (2016: n.p.) points out:

> Women in poor countries seem to be asked about 6 times a day what contraception they use …. But they are not asked about whether they have access to abortion. They are not asked about what sports they like to play.

It would be disproportionate to say that TEGA Bangladesh has created a singular 'Bangladeshi girl' through its top-down selection of 'gender data gaps', as the project did collect data on a wide-range of topics that many of the TEGAs said were important to them. However, it cannot be denied that collecting data on the topics that Girl Effect and the consortium partners felt were important and

omitting others that the TEGAs said mattered to them, will have skewed how 'representative' the TEGA data can be claimed to be.

How representative the data that is collected about girls' lives in Bangladesh is matters because "measurements contribute to producing realities rather than simply representing them" (Liebowitz and Zwingel, 2014: p.365). Textual and numerical data define what is 'known' and therefore 'true' about subjects, thus 'making' social reality in a discursive sense, but also in a material sense through motivating and justifying people's real-world actions in response to the 'evidence' that data provides. In this way, the data that Girl Effect and the consortium partners decided needed to be collected on girls lives - economic empowerment, sexual harassment, sexual and reproductive health, digital financial services, and nutritional needs of garment workers – discursively defines these Bangladeshi girls, and is what development organisations will use to then justify their material interventions into these young women's lives, leading to tangible changes in their realities.

When critically assessing claims of 'closing gender data gaps', therefore, it is vital to ask 'who defines gender data gaps?'. If the 'gender data gaps' that TEGA sought to close had been decided by the TEGAs themselves, and other young women from their communities, rather than by the consortium partners and senior Girl Effect staff, the 'data gaps' in question would have been different. This has both discursive and real-world consequences, that directly affect the TEGA's lives. At the first participatory workshop with the TEGAs in Rangpur (see Chapter 6 for more information), I asked the TEGAs whether they would like to be consulted on the topics that TEGA researches. They agreed, with Khaleda, one of the TEGAs, saying:

> We really want that …we all are working on our villages and already know about the problems. We also want to bring out the problems all together and start working on the common ones. (Khaleda)

Currently the lack of inclusion of the TEGAs in the decision-making process for the TEGA research topics does not match up with their claims to be "girl-centred", nor their statement in their 2019 annual report that:

> Everything we do at Girl Effect starts from the perspective of the girl (Girl Effect, 2019)

It can be concluded that, when viewing the TEGA project through an anticolonial feminist lens, Girl Effect's claim that the programme 'closes gender data gaps' is less solid than it might otherwise have seemed. This section has demonstrated this through bringing to light the issue that whether 'gender data gaps' can be considered to be closed depends on how the 'gender data gaps' in question

have been defined, and by whom. The TEGAs felt that more data collection was required to collect data on topics that were important to them, alongside the data topics selected by the consortium partners and the Girl Effect leadership team. Perhaps if the 'data gaps' had been identified in participation with the TEGAs, the project would have better succeeded at closing data gaps in the TEGA's eyes.

4.3 'Qualified' Researchers

As well as questioning how 'gender data gaps' were defined in the first place, critically examining the TEGA project's claim to close 'the gender data gap' also requires investigating whether the data collected adequately fills the identified gaps. This entails scrutinising the quality as well as the quantity of the data collected. My time spent with the participants in the TEGA project brought to light concerns over the quality and rigour of the data that the TEGAs were able to collect. This was due, in part, to the relative lack of training and support that they received to enable them to collect the strongest data possible. Whilst Girl Effect (2017) states that the TEGAs "are employed and trained via bespoke smart phones to become MRS qualified researchers", the Girl Effect staff working on TEGA in Bangladesh, the consortium partners and the TEGAs themselves all felt that they had not been given the learning opportunities necessary to collect robust, in-depth data that adequately answered the 'gaps' or questions that they were required to address.

The TEGAs in Bangladesh received five days initial in-person training. This was called the TEGA Colours training course. The curriculum for the TEGA training was designed by Girl Effect in partnership with the Market Research Society (MRS). Details of the content of this course can be found in Table 7 below:

Table 7: *TEGA Training*

Part of the TEGA Colours Training Course	Course Content
Part 1	Background and rationale behind the TEGA project, as well as an overview of what the TEGA role would entail.
Part 2 (6 hours and 45 minutes)	Interview skills training. Going through the interview process, from entering the field to and introductions, to 'making a tidy exit' and syncing the data. Introduction to the 'types' of qualitative and quantitative questions also provided. Importance of rehearsing the tasks before entering the field made clear.

Part 3	More specific modules including how to be 'tech smart', how to 'get to the truth', how to manage TEGA money, how to stay safe in the field and also an introduction to recognising and talking about Gender Based Violence.

At the end of this five days the TEGAs were awarded a 'TEGA colours' certificate. Beyond this five-days of initial training the TEGAs then participated in three months of remote training via the TEGA app and their TEGA smartphones. During this period they were set various practice tasks on the app as well as participating in practice interviews and research in the field with the local project field staff. This took them through 'Pink', 'Blue' and 'Purple' levels of 'capacity building'. At the end of this three-month period the TEGAs reached their 'Colours Graduation', and were awarded an MRS (Market Research Society) qualification in 'Digital Interviewing Skills for Market and Social Research'. After this the TEGAs began to take part in data collection for the consortium partners. Occasionally they were given a half or whole day of subject specific in-person training, or 'refresher training', if it was deemed necessary by the Girl Effect senior team for the consortium partner research projects.

Beyond the 'Colours' stage of training and qualifications, the TEGAs were then supposed to move on to working towards the 'Medals' stage of Market Research Society accreditation. This three-stage process, which TEGAs in other countries have completed, begins with a 'Bronze' medal, then proceeds to a 'Silver' medal, and ends with a 'Gold' medal and graduation from the TEGA programme. The learning outcome of the 'Bronze' level is 'Advanced Interviewing Skills', which includes being able to understand research objectives and interview different respondents, as well as being able to research sensitive topics and demonstrate probing skills. The 'Silver' medal level entails 'Critical thinking and reflection', and includes how to design good quality research questions, think creatively, and engage in reflective thinking and analysis. Lastly, the 'Gold' medal level covers 'Professionalism and employability' and seeks to prepare TEGAs for future employment. In order to be awarded the 'Colours' or 'Medal' qualifications, progress reports and video evidence demonstrating each TEGA fulfilling the criteria have to be submitted to the MRS for them to approve. At the time that I left Bangladesh in December 2019, only the Dhaka and Jessore networks had been awarded their Bronze medals. I was told by Farah from the Girl Effect team in Dhaka that this was because these networks had been started before the Bogra and Rangpur networks, and so there had been more time for them to work towards these qualifications.

I was told by the TEGAs, and the staff working on the project, that all of the TEGAs did greatly improve their research skills over the course of this training and their two years of taking part in the project. This challenged people's perceptions of what young women from relatively disadvantaged

backgrounds in Bangladesh were capable of. As a member of staff at one of the consortium partner organisations, Liza, told me:

> I was abit sceptical – I didn't think the girls would be able to do it. But then I attended a training and could see that they can do a lot. (Liza)

However, I was also told by the project staff based in Bangladesh, who worked closely with the TEGAs, that the TEGAs struggled with probing, rapport building and other interviewing skills, and that this affected the quality of the data. This came to the fore during a research meeting at 3 pm on a Sunday afternoon in Dhaka in the iSocial office, which I recorded in my research diary below:

> In the afternoon I joined Anushree and Tahmima on a call with Lauren from the Girl Effect headquarters in London. We had to get really close to Anushree's laptop to be able to hear Lauren over the constant sound of car horns from the road outside the office … next we talked about the limitations of TEGA as a research methodology. Anushree shared that when we were going through the data from the project about the nutritional needs of garment workers, she was surprised that there was not more detail in the answers about what kinds of foods the garment workers were eating. Tahmima said "It's not their fault but the TEGAs aren't asking the questions. They miss it sometimes - some TEGAs don't see the obvious probing questions. There's a gap in understanding. [Research diary 1; April, 2019]

As this example displays, the TEGAs weren't always able to probe effectively during interviews. The fact that the TEGAs faced challenges in carrying out robust data collection is hardly surprising, considering the amount of in-depth, in-person training built into the programme (as detailed above). With this training schedule (five initial days, and remote tasks and sporadic specialist training days thereafter) could the TEGAs ever really be expected to become 'qualified researchers' on a par with 'professional' development researchers, who have usually had access to years of rigorous methodological training? On this basis, a member of staff from another one of the consortium partner organisations, Jannat, told me that:

> There should be more training. Initial training should be more and also more refresher training. Only five days is not enough for them. (Jannat)

The TEGAs themselves also felt that they could have benefitted from more extensive training. Almost all of the 47 TEGAs mentioned this during our one-to-one interviews together, including Asha:

The training process was for 5 days. I think it was a limited time … I think 5 days are not enough even though we have learned a lot … If the TEGAs can be improved then TEGA project will improve. (Asha)

As these quotes demonstrate, the TEGAs, and the quality of the data that they collected, would have benefitted from a greater amount of initial training but also refresher training to support them throughout the two years of the project. However, training is not the only way for the TEGAs to improve their research skills – they were also able to gain experience and capability through engaging in the field research itself. Based on this observation, it seems likely that the data collected towards the end of the two-year project was of higher quality, and thus better closed gender data gaps, than the data collected at the beginning of the project. However, as mentioned in Section 4.2, some of the TEGA networks received a greater amount of research tasks than the other networks. As such, Anushree, one of the project staff based in Dhaka, told me that she wished that there could be regular refresher training throughout the project for all of the TEGAs in Bangladesh to ensure that they all had equally well-developed research skills:

They need repeated refresher training … In India they trained the TEGAs on just interview etiquette for five days. They need more soft skills training to boost their capacity and potential … If you've got no projects going on in the area then you aren't refreshing your research skills. So if there could be refresher training after three or four months then that could give them a chance to practice and keep building their skills. (Anushree)

As well as concerns that some of the networks had more opportunities to 'refresh' their research skills than others, some of the TEGAs struggled more than others to develop their research skills due to their comparatively disadvantaged backgrounds. For example, some had had to leave school aged 13 due to marriage, whereas others were enrolled in university whilst working as a TEGA. It is not perhaps surprising that the TEGAs who received the highest possible grades in their MRS research qualifications, a 'Distinction', were the young women who had been able to continue into higher education (more details on the different circumstances of the TEGAs can be found in Chapter 5). Anushree and Tahmima, two of the project staff based in the Dhaka office, told me that they tried to give individual feedback and support where possible, but that it was difficult to do this at a distance with the TEGAs based in four different regions across the country, and alongside managing a heavy workload of data analysis and report writing.

Whilst there were field staff based in each network area that accompanied the TEGAs to and from their interviews for their safety, as well as checking in with the TEGAs to see how they were doing generally in between research projects, these 'mentors' did not have research training and so could not offer this type of support to the TEGAs. A member of staff from one of the consortium partner organisations, Dilruba, told me that she would have liked it if the TEGAs had had access to individual research skills mentorship throughout the project duration, for example from a 'reviewer' who could go over their findings with them in-person:

> You need a reviewer. You are a TEGA, you go do the interview, then you need someone to look at what you got and say 'do you want to probe a bit more on this'. It doesn't need to be a one off. This way the TEGAs learn to be more analytical, they learn what they need to do. If that was put into it they could have got richer data, and they would have learnt more. (Dilruba)

The fact that the TEGAs lacked access to the individual and group training and support that they, and the Bangladeshi project staff and consortium partners, felt that they needed in order to collect rigorous, high-quality data not only weakens Girl Effect's claim that the TEGA project collected data of the standard required to be said to 'close gender data gaps', but can also be argued to be evidence of the 'romanticisation' of majority world girls and peer-to-peer or community-based data collection in international development. As Arora and Vermeylen (2013) argue, collaborative data gathered by research participants rather than on them in data for development programmes is often falsely considered to be synonymous with quality knowledge. Jannat, the member of staff from one of the consortium partners that I spoke with, corroborated this point, saying that if a trained researcher had carried out the TEGA interviews, rather than the TEGAs, the data quality may well have been higher:

> If I take it or you do it - then the quality will be best, because your area is that. Of course there is a big difference. Nutrition ok, TEGAs can understand – that's not too technical. The topic is easier for them. (Jannat)

Jannat felt that whilst the respondents would likely feel more comfortable speaking to another young woman from a similar background, this did not automatically mean that the quality of the data would be high, as the TEGAs were not as skilled at interviewing as experienced researchers. Anticolonial feminist scholars have pointed out that the romanticisation of majority world women as all-capable agents is as deleterious as disregarding them as solely passive victims (Bee, 2011; Calkin, 2015; Chant, 2016; Moeller, 2018; Rankin, 2001; Wilson, 2011). This is because overt romanticisation is still

'Othering', albeit in a more 'positive' light, and thus perpetuates neocolonial power relations (ibid.). As Ofra Koffman and Rosalind Gill (2013: p.98) write "the feminism invoked" by international development organisations such as Girl Effect "is individualisatic, cut off from collective struggles or historical understandings, and tied to postfeminist, neo-liberal and entrepreneurial ideas". Just as characterising the 'Third World Woman' as a passive victim provides justification for the over-involvement of Western white saviours, the portrayal of majority world women as empowered actors places the burden of responsibility on their shoulders whilst negating the need for the West to take responsibility in dismantling the power hierarchies which continue to give them greater privilege and advantage (Ging-Dwan Boyd, 2016). It is possible to recognise the agency and research abilities of the TEGAs at the same time as noting their need for further support and training so as to further develop their skills. Albornoz et al.'s (2019) data justice project with community members in an informal settlement in Lima, Peru, for example, found that providing long-term capacity building for the community was vital to ensuring that the programme brought about the transformation of power relations, rather than reinforcing the status quo.

In conclusion, investing more in training and capacity building in the TEGA project would have done more to counter power hierarchies than to simplistically render them as capable independent agents, as it would have enabled them to build their confidence and abilities to a greater extent. However, as the TEGAs in Bangladesh received fairly limited training and support, their ability to collect as rigorous data as possible was constrained, and this casts doubt on the extent to which the TEGA project can be said to have closed 'gender data gaps'.

4.4 Girls Speaking to Girls

> You send an adult with a clip board and a questionnaire – who's going to tell them anything? It's an antiquated means of data collection. But if you send a girl from the neighbourhood, you will get the unfiltered truth.
>
> Farah Ramzan Golant, then CEO of Girl Effect (in Ganguly, 2018)

As the above section has shown, without the right training and support, employing a peer-to-peer methodology involving girls interviewing girls living in their own communities, may not alone be enough to ensure that data gathered in this way is as rich and representative as possible. Yet, as the quote above highlights, the central premise on which the TEGA project rests is that girls in the majority world will feel more comfortable talking to another girl, and that therefore TEGA is able to collect more 'authentic' insights and data than other methodological approaches. However, whilst

the TEGAs and some of the respondents that I interviewed agreed with this contention that girls will be more 'honest' when speaking to another girl from their community, others that I spoke to did not. As Black feminist scholar Patricia Hill Collins (2000) argued, power in society is not just gendered, but is also based on race, class, income level and so on. Therefore, no two girls in a community are likely to have an exactly equal power relationship. The empirical evidence that I gathered on the effect that the power relationships existing within the TEGA's communities, and between the TEGAs and the respondents, had on the ability of the TEGA respondents' ability to be 'open' and 'honest' suggests that the TEGA project may not have always collected the most representative data, and therefore cannot be said to have fully closed 'gender data gaps'.

The argument that girls collecting data from other girls in their neighbourhood "will get the unfiltered truth" (Golant in Ganguly, 2018) is the rationale on which the TEGA project is founded. As Girl Effect (2016: p.2) states in a 'Lean Research Case Study' document written for MIT:

> TEGA is … Girl Effect's solution to recognising that traditional Global South research approaches are sometimes intrusive and intimidating and, because of this; sometimes do not gain honest responses. Strangers arriving on doorsteps, asking for intimate information can create a dynamic where respondents feel uncomfortable speaking candidly about their lives. This is particularly true when the respondents in question are adolescent girls. TEGA is borne out of the understanding that an adolescent girl is more likely to feel comfortable speaking truthfully about her life to another girl like her. She is more likely to respond openly to someone who understands her background and the culture in which she lives, as opposed to an adult stranger who does not share her experience.

The project staff that I interviewed and spent time with widely commended the success of the 'girls speaking to girls' approach of the TEGA project. Lauren from the London office, for example, told me that she felt that this alone was enough to outweigh the relative lack of research training and experience that the TEGAs had been able to access:

> This leads into the point of - with peer research the researchers will never be as qualified as researchers who've been doing it for years. There's a trade-off, they're not as skilled, but they can build rapport and have open conversations. (Lauren)

When I spoke to the TEGAs about this contention, they also largely agreed with Girl Effect's supposition that girls speaking to girls ensures more 'honest responses' and accurate data than adults speaking to girls. For example, Ambia told me that:

As the majority of girls are close to our age … so it's comfortable for both of us. (Ambia)

The young female 'respondents' (the term Girl Effect used to describe the people interviewed and surveyed by the TEGAs) that I met and spoke with in Rangpur also mostly agreed that speaking to another young woman from their community was easier than speaking to an 'outsider' like myself:

I liked it – it was more like speaking to a friend. (Shaila, 19 years old)

However, Maliha, one of the other young women who had been interviewed by the TEGAs, told me that she felt differently. During our conversation she suggested that speaking to a peer that she knew might in fact make her feel less comfortable opening up than if she was speaking to a stranger:

Because they are from the village we are meeting often … so I feel shy with them … (Maliha, 13 years old)

One of the representatives from the consortium partner organisations that I interviewed, Liza, also agreed that it is not always the case that girls feel more able to open to up to other girls from their neighbourhood:

The hypothesis is that TEGAs can speak to girls more easily - Yes but girls are not isolated from the community. (Liza)

It is not entirely surprising that some of the TEGA respondents may feel withdrawn when being interviewed by someone that they know. In the words of feminist researchers Judith Preissle and Yuri Han (2012: p.593) "the vagaries of ordinary relationships are inevitable in research relationships too". In the case of speaking honestly about sex before marriage, for example, how relaxed and comfortable one might feel in speaking to a peer from the same area would likely depend on a number of factors, including whether you were from the same friendship group or not, whether you had had disagreements with that person before, how well your families get on – and so on. The assumption that a majority world adolescent girl is "is more likely to feel comfortable speaking truthfully about her life to another girl like her" (Girl Effect, 2016: p.2) could be accused of being simplistic and naïve at best, and at worst exemplary of the romanticising of Third World women eschewed by anticolonial feminists as 'Othering' in the guise of celebrating "specialness" (Trinh, 1987: p.14).

Many of the TEGAs told me during our interviews that the girls that they had spoken to from their communities had been reluctant to answer sensitive questions, regardless of the fact that they came from the same area and were both girls. For example, Mahfusa said that trying to get 'open' and 'honest' answers about girls' sexual and romantic relationships was a challenge:

> There was an issue on sexuality … I asked someone about what she talks about with her boyfriend over the mobile phone. She felt ashamed and got offended. She told me it would not be possible for her to be interviewed if I kept asking those type of questions. It was a challenge for me to work on this topic … some said why would they answer such kind of questions, as it's a very personal thing to share. (Mahfusa)

As well as these concerns over how the unaccounted for power dynamics between the TEGAs and their young female respondents may have affected the data collected during the project, therefore troubling Girl Effect's claims to get the 'truth' and close gender data gaps, it must also be noted that the TEGAs did not only interview their peers. For some of the research projects they were required to speak to young men, or older men and women. The older female respondents that I interviewed in Rangpur said that they felt happy to speak openly with young women from their community. However, a number of the male respondents that I spoke with, including Faisal, did say that they would prefer to speak with a male interviewer. For example, when I asked Faisal if speaking with a male interviewer would be different, he responded saying:

> Yes, it is more comfortable. (Faisal, 25 years old)

Due to the fact that, in general, men in Bangladesh have greater social power than women, evident for example in the fact that men have greater access to means of production and higher value assets than women (Akter and Francis-Tan, 2020), it is understandable that some male TEGA respondents may prefer to be interviewed by another man. A study of men's perceptions of women's participation in development initiatives in rural Bangladesh (Karim et al., 2018) found that the majority of men interviewed feared the loss of male authority. TEGA challenges this patriarchal perspective, and therefore could make male interviewees uneasy. Again, it is not that training a cohort of TEBAs (Technology Enabled Boy Ambassadors) to interview any male participants would have been the answer. As explored above, sharing the same gender and/or place of birth as one's research subject does not negate 'the matrix of domination' of intersecting oppressions that Black feminist scholar Patricia Hill Collins (1990) showed us all to be inextricably bound within. It is just that the male respondents' admission that they would feel more comfortable being interviewed by another man provides further evidence that contradicts Girl Effect's claim that TEGA is able to

garner more 'honest' responses and therefore more 'authentic' data due to its girl-to-girl approach, and therefore close gender data gaps.

A further point to consider is that we do not know the opinions of those who refused to take part in the TEGA research – only those who did agree to speak. Prior to the TEGAs visiting the respondents to collect data, the field staff would visit to explain the purpose of the research and to gain written consent to their taking part. However, I was told by the TEGAs and the field staff that sometimes the respondents would decline the interview. Perhaps those who declined the offer, including other young women, were uncomfortable being interviewed, peer interviewer or not. I was told, however, by field staff and the TEGAs that in some cases it was the parents and guardians of young women that forbade them from participating in the interviews. For example, Sumya, one of the TEGAs, said:

> Yes, sometimes there are problems if, they give the permission first but then they say that they don't want to do this and that… Sometimes they feel afraid, that they are sharing things about abuse, eve-teasing ... people might reveal their names on TV or share their video ... then the family might face problems. Many parents are like, "no problem". But many guardians, even after signing, they say that something might happen. That's why they act like that. (Sumya)

As the above conversation illustrates, there might be a whole host of reasons why respondents from the TEGAs' communities may have chosen not to take part. No data was collected on the reasons why respondents, or the respondents' families, did not want to be involved. Inevitably, this will have skewed the data in various ways. Which voices, and information, is missing from the TEGA data as a result? This issue isn't unique to TEGA – other data for development projects have similarly found that the data they collect is not able to reflect the communities they work with as well as they would have liked due to uneven participation. McCall and Minang (2005), for example, found during a participatory GIS for community forest management project in Cameroon that whilst women participated in the village meetings only a couple of them joined in the mapping of technical and indigenous forest knowledge. This is despite the fact that women are the main collectors of non-timber forest products in that area. They conclude, therefore, that the data collected may not be as representative as it could be, throwing the long-term sustainability of the management plans produced by this participatory project into doubt (ibid.)

To conclude, the respondents' varied reactions to being interviewed by a young woman from their own community paint a convoluted picture, that complicates the simplistic premise that TEGA rests

upon – i.e. that girl researchers can somehow obtain more "authentic" or "honest" data, and thus better fill data gaps, than other kinds of researchers. As with all research, inescapable power relations will influence the data collected, even when the researcher and researched come from a similar background. Feminist scholars have long pointed out that "research is never value-neutral and objective" (Cooky et al., 2018). Yet acknowledgement of this nuance, and the reflexive consideration of the limitations of the data, was lacking in the analysis and write-up of the TEGA research projects.

4.5 Contextualising Confidentiality

Despite the difficulty in sometimes getting respondents to agree to take part in the various research projects, the TEGAs in Bangladesh still managed to carry out over 2,000 interviews over the two-year project period (Girl Effect, 2019). Yet just as the TEGA's positionality, and the positionality of the respondents who agreed to take part, affected the data that was collected during these interviews, so, too, did the context and conditions in which the TEGA research was carried out. I was told by the TEGAs and project staff in Dhaka that carrying out the data collection in the respondents' homes made it more difficult for them to be 'open' and 'honest', with family members sometimes interrupting the interviews part way through. These testimonies therefore suggest that the data collected might not be as 'honest' as Girl Effect declares it to be, and that the project therefore may not have seamlessly 'closed gender data gaps'.

In order to carry out the TEGA interviews the TEGAs would travel to the respondents' houses, accompanied by a member of field staff as a safety precaution. On the positive side this was convenient for the respondents, as it meant they did not have to travel elsewhere to be interviewed. However, just as I had found in my own interviews with the TEGAs, this sometimes posed a challenge, as finding a private spot within a shared multi-generational home is easier said than done. The houses in the rural areas in which the TEGA research was carried out were mostly one room buildings made of wood or brick with a corrugated iron roof. These rooms were shared between multiple members of the same family. The walls were also thin, and often had sizeable gaps in them. Even when it was possible to get the room clear for the research it was hardly soundproof – the risk that a family member might hear what was being said whilst standing outside was high. The urban houses that the TEGAs and their respondents lived in had thicker walls, but similarly were shared by extended families.

Many of the TEGAs, including Bidya and Tareen, told me that even when they did manage to get space alone with their respondents, often they would be interrupted part way through:

We faced different situations while conducting the interview, sometimes during the interview random people would come and sneak peak and distract the respondent or make the respondent afraid about being taped and that it will go viral. (Bidya)

We asked one girl about her menstruation and explained what cervical cancer is. Her mother was standing right beside her. Suddenly she was very annoyed and told us that there was no need to explain such things and why on earth I was telling her daughter about cancer and menstruation. (Tareen)

This issue was also raised by Farah, one of the Girl Effect staff members based in Dhaka, one morning in the iSocial office. Farah told me that she had come across a 'home task' video recorded by one of the TEGAs on the Data Hub where the TEGA was saying how difficult it can be trying to carry out the TEGA data collection as often parents end up responding to the questions on behalf of their daughters. Farah was frustrated by this, and said to me:

We say we are finding the real answers, and the real truth. But how can we say that when our data collection is flawed? I don't think we can say that. (Farah)

Whilst carrying out the interviews with the TEGAs for this thesis research I got to experience these challenges in finding a private place to speak openly first-hand, as the excerpt from my field diary below demonstrates:

Next we visited Tansina. Tansina was very reserved, and seemed nervous when we were talking to her. Her interview was at her in-laws' house, rather than her parents' house. She hasn't been married that long … She sat on the bed with her legs crossed facing us sitting on plastic chairs. At one point in the interview all the female members of her husband's family came in and sat down, looking intensely at us. We had to stop the meeting and ask Ferdous (the District Officer) to come and politely ask them to leave! [Research diary 2; May, 2019]

Again, as with the power dynamics between the TEGAs and their respondents, the difficulty in finding a confidential space in which to carry out the interviews is another factor that will have influenced the data collected during the project, but is also absent from Girl Effect's written documentation, and top-line discussions, regarding the programme rationale and results. However, this issue undoubtedly affected the data that was collected in some way, and thus also the claim that

the TEGA project closed gender data gaps, especially when the questions the TEGAs were asking touched on sensitive subjects.

The consortium partner organisation for whom the research on unmarried adolescent girls' SRH (sexual and reproductive health) knowledge and needs was conducted told me that they thought this was likely the case with their data. They wanted this data in order to be able to better structure the SRH modules that they were delivering as part of a livelihoods and skills-based training programme for girls in Bogra. Dilruba, the representative that I interviewed from this organisation, told me that the female staff that they employed as facilitators of these clubs in Bogra had reported that the adolescent girls attending had confided in them and shared sensitive information on issues such as sexual activity or sexual harassment during the sessions. They also have a helpline for adolescent sexual health, which receives many calls from unmarried girls and boys regarding sexual health and reproductive concerns. Dilruba said that they had hoped that the TEGA interviews, as they were conducted by adolescent girls with their peers, would enable this rich data about the knowledge, awareness and perceptions of sexual health, as well as unmet needs, to be captured in a structured manner, which would be very beneficial to their programming. However, this did not prove to be the case. As Dilruba told me:

> The information we got from the TEGA research was very flat, very political - 'we would never do that', that sort of thing. With TEGA we wanted to know what kind of information adolescent girls need on sexual and reproductive health. But if the information we've got coming in states 'oh no we aren't having any kind of sexual relations' then it's not really helping us change much. We know things are happening - they are adolescents, come on! (Dilruba)

Dilruba also said that they do not think they can use the findings from the TEGA research in their programming, as it does not tally with the reports from their fieldstaff working in the clubs and running their hotline. She concluded, therefore, that the project "is not value for money". It would seem that, in the case of this TEGA research, the young women that were interviewed did not feel able to be "honest" and "authentic" during their peer interviews – despite Girl Effect's claims that girls are "more likely to respond openly to someone who understands her background and the culture in which she lives" (Girl Effect, 2016: p.2). This could be due to the power dynamics existing between the TEGAs and the girls that they interviewed (as discussed in Section 4.4) or perhaps due to the difficulties in finding private and confidential space in which to carry out the data collection within their family homes, as explored in this section.

The challenge of collecting valid and rigorous data on sensitive subjects is not unique to TEGA – indeed, the feminist methodological literature available on the subject is extensive (Acker et al., 1983; Campbell and Wasco, 2000; Guha, 2019; Jansen and Davis, 1998; Ribbens and Edwards, 1998). Other data for development projects are likely to have come up against these contextual methodological challenges too, although written testimony to this effect is not widely available. An evaluation of ActionAid's 'Stop Violence Against Girls in Schools' project in Mozambique, however, did state that it took the full five years of the project for the girls involved to feel finally able to speak up about the violence that they had experienced and confident that appropriate action would be taken (Parkes and Heslop, 2013). Perhaps if the TEGA programme had involved collecting data on these 'sensitive' subjects over a longer period of time, as the ActionAid project did, a greater level of trust and rapport could have been built between the TEGAs, the respondents and the wider community, and this would have led to more representative data being collected, better closing gender data gaps. Liza, the representative that I interviewed from one of the consortium partner organisations, agreed, saying:

> In one project working with adolescent girls, we have a six months nurturing phase. This gives them time to mingle with their peers and we can see how the community feel about it. It's missing in the TEGAs process. It would be good to invest more time in a systematic organised way to make a stronger relationship with the community and with the girls. (Liza)

In conclusion, this section has demonstrated that the difficulties that the TEGAs in Bangladesh had in finding privacy within the respondents' homes affected how comfortable the young women that they collected data from felt during the research encounters, and that this affected the extent to which the data accurately reflected the lives of girls in Bangladesh. This brings Girl Effect's claim that TEGA 'closes gender data gaps' into further contention.

4.6 Technologically 'Enabled' or 'Disabled'?

> By equipping these girls with bespoke mobile technology, TEGA can access the data they collect faster and more cost efficiently than ever before.
>
> Girl Effect (2016)

Alongside TEGA training young girls to collect new data within their own communities, therefore supposedly collecting more "authentic" data that closes gender data gaps, the other key feature of the project is that the TEGA data is collected using smartphones. By providing the TEGAs with

smartphones and training them in how to use a specific TEGA research application pre-loaded onto these devices to gather and submit the data that they are assigned to collect, Girl Effect (2016) argues that they are able to collect data "faster and more cost efficiently". However, the findings from my thesis fieldwork show that whilst the use of this digital technology does make data collection 'faster', as the data is sent to the cloud-based Girl Effect Content Hub immediately after each interview or survey, this comes at the expense of the quality of the data. This section therefore provides further counter-evidence to Girl Effect's claim that TEGA 'closed gender data gaps'.

Digital technologies and ICTs are being increasingly leveraged by international organisations as part of the "big data revolution in development" (Mann, 2017). Girl Effect's TEGA project utilises smartphones to collect digital data. The TEGAs are each provided with a smartphone that houses the TEGA research app. Within the app, which is password protected, the TEGAs record the qualitative and quantitative data that they collect in the field. This is mostly video clips of the respondents answering pre-set interview questions, but can also include audio recordings and photos. As well as this qualitative data the TEGAs are also sometimes required to complete more structured surveys, where the respondents can only select pre-set answers. Examples of these different types of research tasks can be found below:
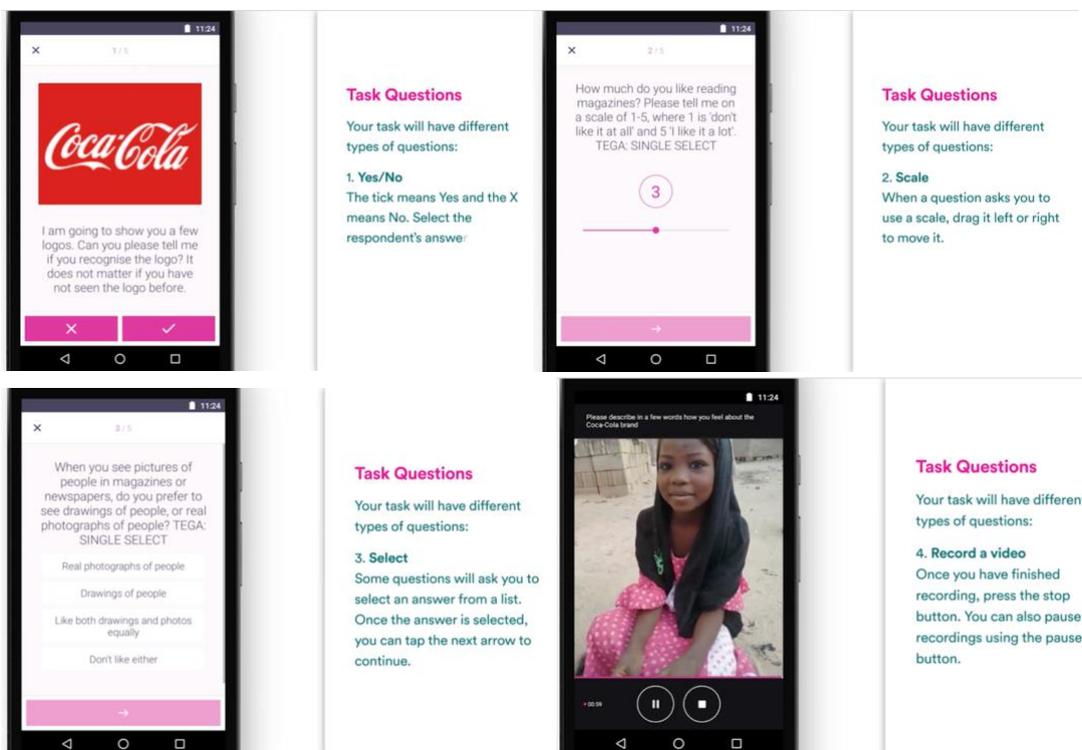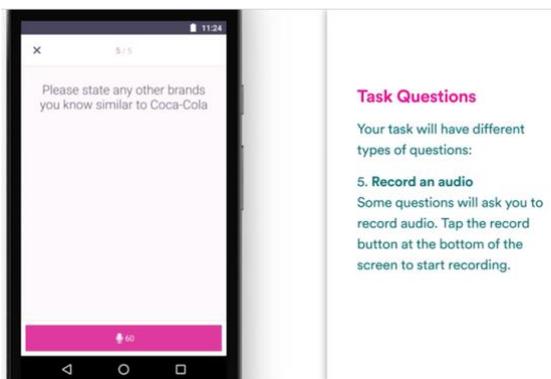
Figure 11: *Screenshots taken of the different types of research tasks that the TEGAs can be set via the TEGA app. Taken from the 'TEGA Research App Tutorial' video available on Vimeo (Girl Effect, 2018)*

The digital skills training that the TEGAs received as part of their initiation into the project was spread out across the TEGA's general training (see Table 7, Section 4.3 for an outline of the general training). Firstly, the TEGAs were given basic introductions to how to use the TEGA mobile phone and the TEGA research app, as well as how to how to look after the TEGA mobile phone. The latter aspect of the training included instilling the importance of keeping the touch screen clean, a full battery and keeping the phone safe. The TEGAs were able to rehearse using the TEGA research app and their smartphones in mock interview situations as part of their 'Interviewing Skills' training. There was also a specific session later on which was called 'Tech Smart'. This section of the training was broken down into 'Tech Smart essentials', 'Tech troubleshooting' and 'WhatsApp training'. 'Tech Smart Essentials' training covered how to update the TEGA app and mobile phone operating system. 'Tech Troubleshooting' involved learning how to solve various tech issues, as well as knowing when and who to ask for further support. Lastly, the 'WhatsApp training' taught the TEGAs how to use WhatsApp, as this was the main messaging app that was used by the project staff to keep in touch with the TEGAs.

The TEGAs' smartphones are connected to the Internet with credit that is loaded remotely by the TEGA fieldstaff. When they submit the data that they have collected it is sent to the TEGA Data Hub, a central cloud-based storage facility where all of the individual pieces of data are sorted, translated and analysed by Girl Effect staff working in the Dhaka office and also at the headquarters in London. The data is erased from the TEGA device the moment that it is sent. The TEGAs also sometimes receive questions that they themselves have to answer called 'home tasks'. Prior to each research task the TEGAs also took part on 'TEGA Checks', which required them to give feedback on the language used in the questions and to flag anything that didn't make sense prior to the data collection. As the data transfer is instantaneous, Girl Effect (2016) states that the TEGA project provides "rapid access to authentic insights from communities in the Global South" in a "safer,

faster, more scalable" way (Girl Effect, n.d.) than other data collection methodologies currently available in the international development sphere.

Yet evidence that I collected during my six months participating in the TEGA project and interviewing those involved suggests that whilst in some ways the young women can be described as 'Technology *Enabled* Girl Ambassadors', the technology aspect of the project also had some 'disabling' effects that hinder the extent to which it can be claimed that TEGA closed gender data gaps. For example, almost all of the TEGAs, including Selima and Matia, told me that they thought video recording the respondents using the smartphones made the respondents uncomfortable:

> Many don't allow us to record. Say ... they don't let us video them. They don't let us as in, when they come in front of the camera, they get scared. Then they forget what they wanted to say as their answer. They cannot say it. Many are shy. That's it. (Matia)

> When we first went to them, they were a little wary of the audio and video recordings. They thought, "I'll be in trouble if these are posted on social media. (Selima)

The respondents that I interviewed also told me that they would prefer their interviews just to be audio recorded, rather than video recorded. For example, during my interview with Khaled, one of the male respondents, he said:

> I prefer this type of interview – I don't like to be video taped. (Khaled, 19 years old)

In Girl Effect's (2016: p.5) Lean Research Case-Study document regarding the TEGA project, they state that the video-recordings "provided visual evidence, [that] the interview had taken place and the right type of respondent had been interviewed". However, Tahmima, one of the project staff based in the Dhaka office, told me that:

> Having the video clippings [is a strength], because although we don't use it for analysis that much when we present the data with the girls speaking and the consortium partners see the data it emphasises the authenticity of the data. They see the expression of the people, so it works well with people who are funding the project. (Tahmima)

Girl Effect, including both staff in London and Dhaka, therefore think that having video recordings of the TEGA interviews strengthens the validity and rigour of the data by providing proof that the right respondent was interviewed in the right way, as well as being a useful marketing tool for

promoting the project to their consortium partners. Yet I was told by the TEGAs and respondents that it made them feel uncomfortable – thus likely making them feel less able to answer the questions they were asked openly, skewing the data. The video recording requirement also made it even more difficult for the TEGAs to find private spaces in which to conduct their interviews confidentially. This was because the respondents' houses, as described in section 4.4, were often too dark to capture video accurately, so the interviews would have to take place outside instead. In rural areas this could work well if a quiet spot could be located. However, in urban areas this caused a lot of problems as passers-by would stop to stare or listen in to the interview. In a later conversation, Tahmima admitted that she was no longer so sure that using the phones to video record the interviews was helpful:

> I am not sure how much using the phone is kind of helping - because recently in trainings and everywhere we are getting ... I mean being interviewed in front of a phone is uncomfortable for everyone. (Tahmima)

These issues shared with me regarding the requirement that the TEGAs record the respondents on smartphones further suggest that Girl Effect's claim that TEGA closes gender data gaps may not be as ironclad as it seems from outside the project. The use of technology may be 'faster' - but it also seems to be making it more difficult for the respondents to be 'open' and 'honest' in the way that TEGA claims to enable.

An additional way that the 'tech' aspect of this project appears to be more "disabling" rather than "enabling" includes the fact that the recordings of the respondents' answers could not exceed more than around 3 minutes. Anushree, one of the Dhaka-based TEGA staff members, told me that this is because any clips longer than this would be impossible to upload to the data hub using the patchy mobile signal available in the different TEGA networks:

> It cannot be more than 5 or 6 minutes ... and we cannot even use the 5 or 6 minute limit as we know the phone syncing issue will be there. So we have to keep it to 3 or 4 minutes. So then the TEGAs have in their mind that they cannot ask additional questions even though we always encourage - because sometimes depending on the respondent you have to repeat or rephrase the questions ... so when we see the data we say arghhh I wish we could ask more! (Anushree)

As a result of this technical constraint, the TEGA questions were designed in a 'closed' manner. The TEGAs agreed with the TEGA staff that this is an issue, as during their interviews they did not feel

that they could probe as much as they wanted to in their questioning of the respondents. For example, during the participatory workshop that ten of the TEGAs and I collaborated on in Rangpur (for more details on this see Chapter 6), Kaniz, one of the participating TEGAs said that she had found the questions "too narrow" and that "the respondents wanted to say more". There was not time for the respondents to expand further, or go into greater detail. This, too, likely constrained the data that was collected, and may have altered the richness of the insights gathered throughout the project. The way in which these technical constraints altered the data collected during TEGA Bangladesh has been experienced in many other data for development projects. For example, Brahmbhatt et al. (2020: p.98) found in the case of an informal settlement mapping project in Ranchi, India, that "patchy mobile network connectivity and use of basic devices often led to time lags and poor records of locational accuracy during geo-tagging procedures". They conclude that "a rethinking of the idea of data accuracy", is required, so that it is no longer perceived as "a static benchmark but a shifting norm structured by the on-ground realities" (ibid.)

Not having the technical capacity and time to go into more detail on various topics with the respondents not only reduced the depth and quantity of data that the TEGAs could collect, but also inhibited the building of connection and rapport between the two parties. As Sharlene Nagy Hesse-Biber (2007) writes in 'The Practice of Feminist In-Depth Interviewing', lightly structured interviews give the researcher a "minimum of control" which helps to "build a relationship with your respondent" by enabling them to take the lead to a greater extent, whereas "structured interviewing is where the researcher has total control over the agenda of the interview". But the structured, short questioning that the technical limitations of the TEGA research app required was not the only way that the 'technology enabled' TEGA methodology created barriers between the TEGAs and the respondents. Additionally, Tahmima told me that:

> Although we are encouraging TEGAs to be friendly and improve gestures and eye contact, it is difficult when you have a phone in your hand – I proposed to provide stands for them, but not sure if it's going to work. (Tahmima)

As this quote elucidates, creating a comfortable atmosphere between the TEGAs and their respondents in which the respondents felt able to be 'honest' and 'authentic' was inhibited by the TEGAs having to sit behind their smartphones, with the camera focused on their research participants. It can be concluded that this finding, and the others discussed in this section, make a strong case for audio-recording, rather than video-recording, as the main TEGA data collection method. This would have made the respondents more comfortable in answering openly, both through removing the scrutiny of being visually recorded, as well as enabling the TEGAs to interact

and bond with the respondents, thus building greater rapport. It is likely, too, that the audio files would have been easier to submit to the Data Hub even with the patchy signal, thus perhaps ensuring that the TEGAs' discussions with the respondents could be more fluid and in-depth.

This isn't to say just moving to audio-recording would resolve all of the technical challenges that TEGA entailed. Farah from the Girl Effect team in Dhaka shared with me that there were myriad other technical problems - from issues with syncing the TEGAs phones with the central app updates so that they could get the research tasks in time, to trying to find or fix lost and broken phones and chargers – that they also had to address:

> Going forward, if the project got more funding, we would need to focus on the tech, as people have struggled. The smartphones, the app, keeping the app up to date, issues with syncing … when we talk about research all the time, the tech gets pushed down even though we got our funding for using tech in this way. (Farah)

The above comment shows that the team wanted a greater focus on improving the tech so that the project could run more efficiently. They told me that dealing with these technical problems took up a disproportionately large amount of their time, which they felt could have been better devoted to research design, analysis and dissemination. Professor Gina Neff (2020) calls the hidden labour going on behind the scenes of data projects "data work" and argues that greater recognition is needed of the social accomplishments, as well as technical accomplishments, that running successful data projects requires. Independent evaluators of Ushahidi, the open source software platform and tech company that crowdsources data to guide crisis responses, similarly to TEGA found that outdated computers and browsers and limited bandwidth hampered growth in usage of the platform, contradicting the assumption that the online nature of the platform would expand its access and usability (Morrow, Mock, Papendieck, & Kocmich, 2011). This finding further corroborates the point made throughout this section that the use of digital technologies, far from supporting TEGA's aim to close gender data gaps, in fact hindered the achievement of this goal in various hidden ways by taking up the staff's time which could have been redirected towards ensuring rigour in the research.

On the positive side, having smartphones meant that the TEGAs could easily communicate with the project staff via WhatsApp. Furthermore, the app afforded greater security, as the data was wiped from the TEGA phones as soon as it was submitted to the Content Hub. If paper surveys, or other recording devices, had been used, then during the process of transporting that data to the Girl Effect staff there would have been more opportunities for the data to be leaked and shared.

However, it is important to remember that data security is never 100% assured in any project (Coles-Kemp et al., 2018). The question mark around whether technology 'enabled' or 'disabled' Girl Effect's TEGA project to achieve its aims therefore remains. My findings, which this section explored, showed that the use of video-recording via smartphones as the main method of data collection reduced the ability of the respondents to answer the research questions openly, by making them feel vulnerable and inhibiting the ability of the TEGAs to engage with those they were speaking to. The digital transfer of video and audio files was also constrained by the limited connectivity infrastructure, particularly in the rural areas where many of the TEGAs were based, and this limited how long the answers to each question could be. On balance, it could therefore be argued that the inhibiting aspects of the digital technological components of the TEGA programme towards closing gender data gaps outweighed the enabling aspects.

4.7 Lost In Translation

The previous four sections have discussed findings from my thesis fieldwork that suggest that the data collected as part of TEGA Bangladesh is not as straightforwardly 'honest' and 'authentic' as Girl Effect suggests. Many factors, from the TEGA's positionality, to the location of the data collection, to technological challenges, and limited training and support given to the TEGAs to develop their research skills, were all revealed to have reduced the extent to which the respondents could open up to the TEGAs. These findings weaken Girl Effect's claim that the TEGA project unambiguously 'closes gender data gaps', as they provide evidence that the data collected may not represent girls' lives in Bangladesh as accurately as it could. However, my research also found evidence which would suggest that as well as there being factors which shaped the data in particular ways during its collection, the way in which the TEGA data was processed and analysed also presented challenges that may have limited its accuracy and therefore ability to 'close gaps' in knowledge.

Once the TEGAs had submitted the data that they collected from their respondents to the cloud-based Girl Effect 'Data Hub', it was then wiped automatically from their phones. The next stage of the data analysis process involved a team of translators, or 'Research Assistants', based in the iSocial office in Dhaka translating and transcribing the video clips of the respondents answering the various questions that the TEGAs had asked them from Bangla into English. Once the video clips had been given English sub-titles, they were then ready for analysis by the Girl Effect research staff in both London and Dhaka. The findings from this analysis were then written up into reports for the Consortium Partners.

As part of my series of interviews with the TEGA project staff I spoke with Sahama, one of translators. Whilst we were talking I mentioned that I had been concerned about the language barrier between myself and the TEGAs during my interviews with them, which (as discussed in Section 3.8.3) I felt would have reduced my ability to fully grasp what the TEGAs were trying to tell me, and therefore also my ability to represent them fairly. In response, Sahama said:

> Forget about you and the TEGAs. We have cultural difference with the TEGAs … I might not know what she means by one particular word that might be community specific. It happened with the Rangpur respondents, we couldn't understand a lot of words. But then we found a Rangpur dictionary. When you work with a lot of people then eventually you will get the correct meaning … (Sahama)

As Sahama's words demonstrate, there was not only a language barrier between myself and the TEGAs, but also between the Dhaka-based research assistants and the respondents whom the TEGAs collected data from. This linguistic 'gap' meant that the translators 'couldn't understand a lot of words' that they were supposed to translate until they found a dictionary. Afrin and Baines (2018: p.4) write that "Bangladesh … abounds in dialects delineated by region and microculture". A report written after a discussion about languages in Bangladesh at the North South University in Dhaka similarly argued that "the regional quirky dialects of the Bengali language are peculiar to particular communities" and that "people … may have to be ready to face eccentricity and twist of meaning" (IML Research and Information Team, 2013: n.p.). This diversity in the Bangla 'bhasha' (or language) became apparent in my own research, after an interview with Monu, one of the TEGAs in Bogra:

> The fourth TEGA we visited was Monu. Her mum welcomed us warmly into their small house, which by this time was very dark due to the stormy weather outside and the fact it was getting late … Monu's mum was very talkative, but Tasnia didn't understand it all, as she was speaking in a local Bogra dialect. Habibul (the Field Officer) helped us out, and told us that she was telling us how her husband is sick, so it's a real struggle to educate her daughter, but that she is so smart and should be able to study. She works so hard selling eggs to support her daughter. [Research diary 1; May 2019]

As this excerpt from my field diary and Sahama's words show, there is significant variation across the multifarious dialects of Bangla, and this can mean that those from one region (such as Dhaka, where Tasnia and Sahama are from) may not be able to understand those from another region (such as Rangpur or Bogra, where many of the TEGAs and their respondents were from). Translation

from one language or dialect to another is always challenging no matter the research project or context involved, due to it being difficult to find the exact conceptual equivalent for certain phrases or words across cultures and places (Choi et al., 2012). Tarozzi (2013: p.18), drawing on Venuti (1995), argues that this puts translators in a position where they have to choose between 'domesticating', which is where the data is interpreted so as to meet the conventions of the target audience, or 'foreignizing', which is where "'estranging' elements of the parlance" are maintained to "remind the reader of its difference". In the case of the TEGA project in Bangladesh the fact that there was also a language barrier due to the regional specificity of certain words and phrases will have further exacerbated the struggle to understand and translate the respondents accurately. This will ultimately have moulded the data in ways that may not best represent what the respondents were trying to convey.

This issue regarding the adequate translation of the TEGA data connects, however, to the broader issue of how the processing of the TEGA data, and which stakeholders were involved in this process, shaped how representative it can be said to be, and thus whether it truly 'closed gender data gaps'. The TEGAs and the respondents were not involved in the translation, transcription, analysis, or the write-up of their data. This is significant because, as feminist and anticolonial theorists have long pointed out, research is subjective and shaped by the individual positionalities and perspectives of those carrying it out (Alcoff, 1998, Kapoor, 2004; see Section 3.8.3 for more on this). Similarly, digital "data are not free of ideology, as they do not emerge free of the views, methods and technologies of the people that conceive, generate, process, curate, analyze and store them" (Gutiérrez, 2019b: p.59). As Kapoor (2014: p.736) argues, this means that the representations that those in power produce of subalterns, whether datafied or otherwise, ultimately "reflect our own image and desires … reinforcing their subalternity". Flyverbom et al. (2017) raise this issue in relation to the use of synthesising algorithms to process big data in data for development projects. Focusing on the use of Twitter-based word clouds by UN Global Pulse to monitor the impact of food prices on the lives of people living in Indonesia, they highlight the fact that the algorithms processing this data will have been trained and created by people, and thus are not 'rational' value-free technologies, but instead will "transfer assumptions … to the practice of governance" and are thus are "a source power" (ibid.: p.39). Whilst TEGA involved smaller-scale data and different technologies, in a similar vein the fact that the processing of the TEGA data was carried out by research assistants and researchers based in Dhaka and in London will have meant that the 'data' that was finally presented to the Consortium Partners in their reports was shaped in ways reflective of the perspectives of those doing these parts of the data work, rather than the TEGAs and respondents whom it supposedly 'represents'.

Yet as postcolonial feminist theorist Gayatri Chakravorty Spivak (1988) argues in her influential essay, 'Can the subaltern speak?', the resolution to this conundrum is not as simple as making space in academic or NGO-led data projects for subalterns to represent themselves. This is because even when subalterns are 'speaking', the colonial and patriarchal nature of the dominant global epistemic systems renders the meaning that the female subaltern is trying to impart 'unhearable' (ibid.). As Griffin (2018: p.11) reiterates, "the subaltern woman 'can and does speak' … but is she heard? By whom?". From this perspective, it can be argued that involving the TEGAs and the respondents in the data translation and analysis would not necessarily have meant that the TEGA data was more representative, as what they wanted to say may have not fitted within the particular development discourse that Girl Effect and the Consortium Partners operate within and perpetuate. The TEGA promise (see page 10) which the TEGAs had to make before joining the programme asked them to commit 'to having the voices of the girls of [Bangladesh] heard and listened to', but was this perhaps a promise impossible to keep in the discursive context of a Western-led mainstream international development project?

However, whilst the challenge of representing others accurately, and in particular majority world women, is not easily resolvable, Spivak (1990: p.62) maintains that "to refuse to represent a cultural Other is salving your conscience, and allowing you not to do any homework". Anticolonial and feminist researchers, in response to the comments raised by Spivak (1988), Mohanty (1984) and other majority world feminists, have developed a range of strategies to try to represent women in the majority world as best as possible (Alcoff, 1991; McEwan, 2001; Salem, 2018). In relation to digital data specifically, data feminists D'Ignazio and Klein (2020: p.136-137) advocate for, alongside reflexivity and transparency in data work, "embracing pluralism" and "deliberately inviting other perspectives into the data analysis and storytelling process – more specifically, those of the people most marginalized in any given context". Drawing on the feminist concept of standpoints – which conceives of knowledge as subjective, situated and dependent on where one is 'standing' (Harding, 1995) – they argue that "by pooling our standpoints – or positionalities – together, we can arrive at a richer and more robust understanding of the world" (p.136). Perhaps then, on this basis, it could still be argued that including the TEGAs and respondents in the TEGA data beyond the point of collection could have enhanced the data, making it 'richer and more robust', and freer perhaps from errors relating to misunderstanding, which would have better enabled the data to 'close gender data gaps'.

In conclusion, therefore, this section has shed light on the translation, transcription, analysis and writing-up stage of the TEGA data journey from the TEGA's communities through to the offices of the Consortium Partners. This thesis found evidence that the accurate translation and

transcription of the data gathered from the TEGA respondents posed challenges due to differences in local dialects of the Bangla language. This is an example of how the exclusion of the TEGAs and the respondents from the processing, analysis and write-up of their data, with this instead being carried out by translators and researchers in Dhaka and London, will have shaped the data in ways that may not accurately reflect them. Whilst there are no easy answers to the issue of representation in research or data projects, drawing on anticolonial and feminist theory it can be argued that if the TEGAs and their respondents had been involved in some way in these latter stages of the journey of their data, this may have made the data more 'rich', 'robust' and representative.

4.8 More numbers, please

Sections 4.3 to 4.7 have discussed findings that arose from my thesis fieldwork which problematise Girl Effect's claim that TEGA unequivocally captures the 'truth' and 'closes gender data gaps' about girls in Bangladesh, due to factors specific to the data collection and data processing stages of the programme. More similarly to section 4.2, which explored how the various participants involved in TEGA Bangladesh had different understandings of what constituted 'gender data gaps', and thus also different opinions as to whether TEGA succeeded in 'closing' them, this section explores further findings that illustrate that those in the project had disparate views as to whether TEGA did close gender data gaps. In this case, the different stakeholders had contrasting thoughts on the type and quantity of gender data required to fill the supposed chasms of gender information.

With regards to the type of data needed to close 'gender data gaps', the stakeholders engaged in TEGA Bangladesh had opposing opinions as to whether qualitative or quantitative data was required. Officially, the TEGA Bangladesh programme collects both. Sometimes the TEGAs would be asked to carry out quantitative questionnaire research that involved asking respondents to choose their answers to closed questions from a pre-set range of options. However, most of the time the method used to collect the TEGA data was face-to-face interviews with the respondents. Girl Effect classified the data collected in this way as 'qualitative'. However, the staff members in Dhaka felt that as the interviews were tightly structured with set questions and short time-limits (due to the technological constraints explored in section 4.6) this interview data could not truly be labelled as 'qualitative':

> We say we have open ended questions and that this isn't a closed method but actually it is. (Tahmima)

This observation – that the 'qualitative' data Girl Effect says that the TEGAs collect could be considered 'quantitative' – was shared by Dilruba, one of the consortium partner representatives that I spoke to, as well:

> Where we went they only interviewed 30 girls. The research methodology was just a questionnaire, which is quantitative, but the sample size was qualitative. There was no in-depth probing. So the data we got was not very in-depth - it is not something we can really use. (Dilruba)

This quote demonstrates that this consortium partner was hoping for rich, in-depth qualitative insights from the TEGA interviews, but as the interview was made of short, closed questions (leading this partner to state that the interview was a 'questionnaire' rather than the interview they had hoped it to be) the data received was too shallow, short and structured to meet this expectation. The question of 'how much' data is required to fill the gender data gap is also raised in this comment. The consortium partner did not think that this 'questionnaire' style interview had been carried out with enough respondents as to be, in their opinion, truly 'quantitative' and was therefore not 'useful' to them.

Whilst this consortium partner, and the multi-national NGO that they work for, were interested in small-scale qualitative data from in-depth interviews, this viewpoint was not shared by other stakeholders. For example, the representative from one of the other consortium partners that I spoke with told me that they only wanted quantitative data and on a far greater scale. When they agreed to be a part of the TEGA consortium, enticed by the prospect of free research funded by DFAT, they had hoped that they would be able to negotiate with Girl Effect to alter the TEGA methodology for their needs:

> The study is qualitative. But I need quantitative to include it in my study. I need a bigger sample. When we shared our findings in a session everyone was looking for percentages. It's a very very small sample - 40 to 50. It's not representative. To increase the sample size is vital. Our expectation was a sample size of 500 or more … (Jannat)

This view that quantitative data collected at a large scale is the only data that can be considered 'representative' was not only held by the consortium partner quoted above, but also by other NGOs that Girl Effect saw as possible future clients of the TEGA programme. During the second phase of my research (September – December 2019) Girl Effect was seeking new research partnerships in order to be able to continue the TEGA project in Bangladesh, as the DFAT funding was coming to an end in December. UNICEF approached with a possible research contract lasting 1-2 years, in which they wanted TEGA to provide monitoring, learning and evaluation (MEL) services for one of their programmes. However, they wanted mostly quantitative data to be collected for this purpose. The senior Girl Effect TEGA staff working in London had little interest, however, in providing quantitative data monitoring services. During an informal interview with Victoria, one of these senior staff members, they told me that their "USP is qualitative research" and that they were

not interested in "quantitative stuff". One of the staff members based in Dhaka, Farah, also re-iterated this point that qualitative data collection was the "team's speciality" and that providing quantitative data services would require contracting in outside specialists or hiring someone new with experience in big data – something the senior team in London was reluctant to do. Unsurprisingly, the UNICEF partnership did not come to fruition.

Similarly to the London TEGA senior leadership team, many feminist scholars have also argued in defence of qualitative data. Postcolonial and black feminist scholars, in particular, have pointed out that the burden of providing statistical proof of suffering is unfairly placed on the shoulders of the less privileged. As researcher Candice Lanius (2015 in D'Ignazio and Klein, 2020) wrote in her blog post 'Fact Check: Your Demand for Statistical Proof is Racist', more data will never be the answer, as those in power continue to refuse to listen to testimony from disadvantaged groups but instead ask for ever more data in order to take action against injustice - even as they will accept anecdotal evidence from their peers. Despite these pertinent points, it is now largely recognised that "what makes feminist research feminist is less the method used, and more how it is used and what it is used for" (Kelly et al., 1992). Yet in the international development sphere, NGOs and other development institutions, including those working on gender equality, continue to value quantitative data more highly its qualitative counterpart. Emily Springer (2020: p.56) interviewed 19 gender advisors serving organisations involved in a large scale development initiative, and found that although the advisors themselves articulated a "strong preference for qualitative data to best capture the lives of the women they aim to assist" they still voiced a need for quantitative metrics. This is because "numbers appeal to their coworkers as 'evidence'", helping them to convince dismissive colleagues of the need for gender mainstreaming, and force their compliance (ibid.: p.70). This research corroborates other feminist research that details rise of the "measurement obsession" in development (Liebowitz and Zwingel, 2014), which can be linked to the creep of corporate logics into the social sphere, and risks flattening the nuance of women's lives into a few simplistic indicators (Bradshaw et al., 2017; Buss, 2015; Fuentes and Cookson, 2020).

From this perspective, it can be perhaps considered encouraging that the TEGA leadership team at Girl Effect HQ continue to emphasise the importance of qualitative data over the quantitative, as this could be seen as pushing back against the failure of other development actors to see words as real 'proof'. For the TEGA team in Dhaka, however, the decision by the Girl Effect staff in London to focus on qualitative over quantitative data was frustrating. They told me that they worried about the implications this had for the future of the TEGA project in Bangladesh and for the TEGAs. Indeed, in my conversations with the TEGAs it was apparent that the TEGAs themselves did not mind what type of data they were collecting, only that they could go on collecting it, and on a greater scale, so that they, and the other young women in their community, could continue to benefit from

the improvements in their lives that the TEGA project brought about (more on these next in Chapter 5: Closing the Gender Gap). Yet the head of Girl Effect's in-country partner, iSocial, Fahrid, told me that if the TEGA project in Bangladesh was to continue in the future then it had to be commercially viable – and this meant changing focus from qualitative to quantitative data:

> I understand in TEGAs there are two perspectives - 1. Creating confidence in girls and 2. Creating data for needs of institutions. From the first perspective it works well, but in the second … that I have been proposing to [senior TEGA staff members name, removed for privacy], if we can offer both qual and quant, and TEGAs can do the qual, but other researchers can augment it in terms of complexity – combining the two. (Fahrid)

To conclude, this section has demonstrated that different stakeholders within the TEGA project in Bangladesh held differing views as to whether the project succeeded in collecting the right type of data, and the necessary amount, to be able to say that the programme achieved its goal of closing gender data gaps. For the consortium partners the data that the TEGAs collected was either too structured, and thus not qualitative enough, or not on a large enough scale so as to be truly quantitative. Going forward, the TEGA team in Bangladesh felt a shift towards a more quantitative approach was necessary to ensure the commercial sustainability of the project in the future, and to safeguard the TEGAs' jobs. However, the leadership team in London did not express an interest in this transition, preferring instead to focus on the small sample 'qualitative' interviews that are the hallmark of the TEGA methodology. It is clear that depending on which perspective one takes, different conclusions can be drawn as to whether TEGA succeeded in closing gender data gaps – and indeed, whether the project will be able to continue to make progress towards this goal in the future.

4.9 Conclusion

> TEGA is organically accumulating a wealth of data … As TEGA rapidly scales to new geographies (6 countries by the end of 2016, 20+ countries by the end of 2020), TEGA will quickly become one of the world's richest and largest video data sources on girls and their communities.

> Girl Effect (2016)

In conclusion, this chapter has explored some of the key findings from my thesis research that challenge the simplistic notion that Girl Effect's TEGA project 'closed the gender data gap'. Throughout the two years that this project ran in Bangladesh a significant amount of data was

collected that pertained to the lives of young women. Yet whilst this data did shed new light on some gender related issues, it can also be argued that the data collected did not go far enough to fully 'close gender data gaps'. This is due in part to the power dynamics between the TEGAs and the respondents that they gathered data from, to the contextual difficulties in finding private spaces in which to conduct data collection confidentially, and to the off-putting nature of being video-recorded by a smartphone. These factors affected how comfortable some of the respondents felt answering the TEGA's questions honestly, thus contradicting Girl Effect's (2016: p.2) claim that "girls feel more comfortable talking to another girl". Additionally, the TEGAs were constrained in their ability to collect data that was of highest quality and depth, due to the relative lack of training and support available to them, and to the limits that the local Internet connectivity and TEGA research app put upon their ability to probe deeper and longer into the various research subjects with their respondents. Furthermore, the fact that the TEGAs and the respondents were not involved in the processing of the TEGA data exacerbated challenges in accurately translating and analysing the project findings, which will have shaped the data in ways reflective of the perspectives of the staff members engaging in this stage of the data work. Perhaps it can be concluded that providing 'rapid access' to insights from the ground through employing digital data technologies that are 'cost effective' does not marry well with 'authentic' and 'honest' data on girls' lives.

Different participants in the TEGA project also held disparate opinions as to the success of the TEGA project in 'closing gender data gaps'. The consortium partners wanted quantitative data on a greater scale, whereas the TEGAs wanted to speak to more respondents but on different subjects to the ones selected by the consortium partners. The Girl Effect and iSocial staff working in Bangladesh wanted to meet the consortium partners' requirements for more quantitative data to ensure buy-in, funding and the longevity of the project, largely so that the TEGAs would have an ongoing source of income. Meanwhile, the Girl Effect staff in London argued in favour of qualitative data, whilst also recognising the commercial necessity of meeting paying clients' needs. From an anticolonial feminist perspective it can be argued that the needs being met in this project should have been those of the TEGAs and the young women whom this whole project was designed to help. Yet as anticolonial feminists have long pointed out, the winners of development are seldom those targeted as being in need of being 'developed', but are usually those doing the 'developing' (Wilson, 2015).

Of course, some of the issues that the TEGA project came up against in seeking to 'close the gender data gap' are shared more widely. For example, there will always be irresolvable power dynamics between data collectors and data givers, no matter the research project in question. So, too, will dilemmas regarding translation and representation always arise, whether the data being processed is

digital or not. Additionally, it is difficult for individual projects to rise up against the long history within academia and industry of quantitative data being considered to be true inarguable 'evidence' in comparison to 'fluffy', subjective qualitative data. Yet there are things that the TEGA project could have done to enable the TEGAs to collect more representative gender data, and thus better close gender data gaps. These will be discussed in Chapter 6 – 'Enacting Anticolonial Feminist Data for Development'. If taken on board, TEGA, and other gender data for development projects, could have greater success both in closing gender data gaps and the gender gap, through bringing about greater equity for women and men through data-driven interventions.

As this chapter has explored the first half of the 'gender data for development' discourse, which posits that 'closing gender data gaps' will bring about the 'closing of the gender gap', the next chapter explores the second half – the 'closing of the gender gap' (the gap in equality between men and women) that supposedly comes about as a result of collecting new gender data. As was found in this chapter with regards to the 'closing of the gender data gap', my research also found that whilst it can be said that the TEGA project improved the lives of young women in Bangladesh to some extent, there were a number of factors that make it difficult to draw simplistic conclusions. Effectively closing gender data gaps is a challenge, and so is addressing the power divide between men and women, gender data or no gender data.

Chapter 5: Closing the gender gap

5.1 Introduction

Whilst Chapter 4 explored the extent to which the TEGA project in Bangladesh closed the gender data gap, Chapter 5 moves on to examining the extent to which it closed the 'gender gap'. The rationale driving the global interest and investment in 'closing the gender data gap' is not, after all, gathering data for data's sake. Organisations such as Girl Effect are investing in gender data because of the belief that doing so will bring about greater gender equality. For example, Pryor and Seck (2019: p.1) of the UN Foundation hosted organization 'Data2X', state that "understanding and measuring women's empowerment – and acting on that information – is a necessity" for achieving Sustainable Development Goal (SDG) 5 – to 'achieve gender equality and empower all women and girls'. Gender data proponents, such as Rashid and Schaffer (2019: p.1), state that as "there is a paucity of data on issues that are particularly relevant to girls and women", development organisations are not able to fully understand women and girls' needs and design interventions to meet these, as well as to monitor the efficacy of these efforts. Therefore, logic dictates, in the words of high profile gender data supporter Melinda French Gates (2016b), that "closing the gender gap, requires closing the data gap".

Girl Effect's TEGA project in Bangladesh is based on this same reasoning. Girl Effect states that "to create meaningful change for girls we need to close the global gender data gap" (Girl Effect, n.d.). The 'meaningful change', or closure of gender gaps in equality between men and women, that TEGA seeks to bring about can be divided into two categories. Firstly, Girl Effect (2019: p.2) argues that the digital information that the TEGAs collect constitute "deeper insights [that] have helped organisations design more effective and targeted initiatives that are having real impact in the lives of girls and their communities". Secondly, because the young women involved are "given skills to become qualified TEGA researchers", and are paid for the data collection that they do, Girl Effect (2016: p.2) also states that the project is "a powerful girl empowerment intervention in itself".

This chapter presents empirical data, analysed through an anticolonial feminist theoretical lens, that sheds light on the extent to which the TEGA Bangladesh programme did contribute positively to the lives of the young women involved. The implications of the income that the TEGAs earned through their data collection work is discussed, as well as other personal benefits that they gained through their involvement in the project. However, these outcomes are framed by the TEGAs' concerns about their uneven distribution, due to the irregularity of the data collection work and the ways in which their intersectional identities put some of them in a more precarious and vulnerable

situation than others. The notion that the project had a 'real impact in the lives of girls and their communities' is considered next. This involves examining the tangible influence of the programme on the circumstances of those living in the TEGAs neighbourhoods and villages, as well as the evidence regarding how the TEGA data changed the consortium partners' approach to project delivery.

5.2 TEGA and 'closing the gender gap'

Just as ascertaining the ways in which the TEGA project may, or may not, have closed the gender data gap required determining the definition of the gender data gap, so, too, does exploring the ways in which the TEGA project closed the gender gap require a definition of the 'gender gap'. However, as Chapter 2, which contains the literature review from which this thesis research stems, pointed out, this is no easy task, as just as there is no singular definition of the gender data gap, there is also no solitary understanding of what constitutes the 'gender gap'. The phrase is used in diverse contexts, whether in relation to women's underrepresentation in computer science courses at university in the U.S. (Jung et al., 2017) or the lack of access to agricultural inputs women experience in comparison to men in some South Asian contexts (Buvinic and Levine, 2016: p.35). In the case of the TEGA project, the research topics, or 'data gaps', selected for the TEGAs to gather information on (See Table 6, Section 4.2), were also 'gender gaps'. So, for example, Consortium Partner 1 wanted data on girls' economic opportunities because they had recognised that girls in Bangladesh were less likely to have access to employment than boys, and they wanted to address this in their programming. However, the other Consortium Partners had other 'gender gaps' they wanted to address. Whilst there is variation, therefore, in how 'the gender gap' is defined, what is common across all of the uses of the term is that it is used to describe instances of gender inequality. Thus, in a broad sense, the 'gap' in 'gender gap' refers to the 'gap' in equality between women and men.

Just as there is no one way of defining the 'gender gap', there is also no singular way of going about closing it. In the case of the TEGA project in Bangladesh, Girl Effect positioned the programme as contributing to gender equality and the closure of 'the gender gap' in two main ways. These two different contributions to closing 'gender gaps' were summarised for me by Lauren, one of the Girl Effect members of staff based at the London HQ:

> With TEGA … I think there's like a two part impact. So there's the empowerment impact for the girls … so essentially it's a programme that gives them research skills, and money and there's an empowerment process in that. And then there's a secondary or another

objective which is to collect better data and more data. Which means programmes are designed for girls based on their opinions and more accurate research. (Lauren)

As this quote from Lauren demonstrates, the TEGA project was seen by Girl Effect to close 'gender gaps' in two key ways, firstly by providing new opportunities, skills and money for the TEGAs themselves, and secondly by providing accurate information to enable better and more effective projects to be designed to benefit girls in Bangladesh more widely. Lauren added that out of the two, she primarily saw the contribution of the project as lying more strongly in closing 'gender gaps' in the latter category:

> I think the reason the narrative is more being shaped around the second one is because that's where TEGA has quite a ground-breaking impact. I think it's a great empowerment programme too, but with the cost per girl, there's better ways of doing that. Whereas as a data collection tool, it's still expensive but there's not as much like it out there, it's more unique and it has the potential to impact lots of girls. (Lauren)

This argument by Lauren, that the TEGA project's main contribution to 'closing the gender gap' lies in the way in which the project benefits multiple girls through generating improved research findings that contribute to the design of better development projects, rather than through 'empowering' the TEGAs themselves, was a sentiment shared with me by Anna, another Girl Effect staff member based in the London head office, at a meeting with the wider Girl Effect London TEGA team:

> Just to caveat that TEGA …like as much as empowering girls is really important they are primarily to us researchers. We want to do good by them, and that is integral to how we work. But we see it as first and foremost a really good data collection tool … because it's not an intervention. Although anything we can do to help the girls in any way we can obviously we want to do. (Anna)

As these two quotes from Lauren and Anna show, Girl Effect therefore primarily understood the TEGA Bangladesh project as 'closing gender gaps' and bringing about gender equality through the 'really good' data collection that the programme entailed, and the subsequent usage of this data by development organisations working with girls on the ground in Bangladesh. The ways in which the TEGA project benefitted and 'empowered' the TEGAs was also seen as 'really important', but was not the primary goal of the project.

This chapter will now move on to considering this latter contribution – the ways in which the TEGA project 'empowered' the TEGAs – drawing on the interviews, participant observation, and participatory workshops carried out with the TEGAs and the wider project staff, before moving on to discussing the evidence as to how the TEGA project empowered girls across Bangladesh through data.

5.3 Closing the 'gender gap' for the TEGAs

In a report written for MIT, Girl Effect (2016: p.2) states that:

> Beyond collecting data, TEGA has a proven positive impact on the TEGA researchers. Girls living in poverty with no or little economic opportunity are given skills to become qualified TEGA researchers. During this journey, their value, voice, visibility and connections increase significantly.

During my time spent with the TEGAs they shared with me a number of ways in which the project had had a 'positive impact' on their lives as a result of their involvement with it, some of which were 'economic' and relating to 'value', 'voice', 'visibility' and 'connections', as well as other outcomes. However, some of the TEGAs shared that they did not feel that they had been able to benefit as greatly from the project as a result of the precarity of the TEGA work and their positionality. This section will first discuss the issues of precarity and positionality, as these frame the extent to which it can be said that the TEGA project 'empowered' the TEGAs, before discussing the positive outcomes that the TEGAs experienced.

5.3.1 Precarious and intersectional empowerment

The TEGA project in Bangladesh began with the setting up of the Dhaka and Jessore TEGA networks by Girl Effect and their in-country partner iSocial in April 2018. Bogra and Rangpur then followed in August 2018. I was told by the project staff based in Dhaka that this was seen to be the best way to manage the initial training process, so that 'lessons could be learnt' from the first two networks and then applied to the set-up of the second two networks. In all four networks, the first three months of training were busy for the TEGAs with lots of training and research activities which they were compensated for. However, after this initial three-month period the workload depended on the demands of the consortium partners. As previously discussed, the TEGAs carried out research for a number of NGOs, known as the Consortium Partners. Over the course of the two-year project length, each Consortium Partner had data collected for them by the TEGAs and

analysed and reported back to them by the Girl Effect and iSocial research teams. For each of the consortium partners this process took a few months. However, each of the consortium partners only required data collection from one or two of the networks. This was because they wanted the data collected to be relevant to their own programmes, and they only operated in certain areas of the country. Dhaka ended up having far more work than the rest of the networks, whilst Jessore received the least. However, the precarity and irregular nature of the research work was a source of a concern for all of the TEGAs, as these quotes from my discussions with Lata and Sobhana, from Rangpur and Dhaka respectively, demonstrate:

> They came to our house and told us about the work. They said that there will be six to seven days duty in every month. We believed them and took the training. First three months was consecutive and smooth, after that there was a break. If the process becomes consistent, it would be great. (Lata)

> It's a problem for us if there's a gap of 2-3 months. So we want work every month – it doesn't have to be much, but it'd be helpful if we got some work every month. (Sobhana)

As these quotes demonstrate, the TEGAs had expected that the TEGA data collection work would be assigned to them more regularly than it was. The lack of consistency in their 'flexible' work schedules was a cause of concern for them. As Anwar and Graham (2020: p.2) note, the "rapid diffusion of digital technologies has generated new kinds of economic activities (often referred to as the 'gig economy', 'digital work', 'online work', 'online outsourcing', 'crowdwork' and 'virtual work')" in the majority world. Sometimes also referred to as the platform economy, the "remote gig economy" can be defined as the "remote provision of a wide variety of digital services mediated by online labour platforms" (Wood et al., 2019: p.56). Anwar and Graham (2020: p.2) argue that whilst the platform-based gig economy "brings freedom, flexibility …" it is also associated with "precarity and vulnerability" (ibid.). Whilst not fully online, the TEGA research work did involve the use of the TEGA research application on the TEGA's smartphones, and in line with Anwar and Graham's (2020: p.2) observations, being able to conduct their TEGA research part-time, alongside school work or caring commitments, meant that the TEGA role was flexible enough for the TEGAs to be able to take part. However, on the other hand, it also meant that the project put the TEGAs in a position where they did not know how much they would earn in any given month. The irregularity of the TEGA data collection work was an issue which all of the TEGAs raised with me during my conversations with them. They felt that more could have been done to provide a regular salary so that they did not have to worry about when they would next have work.

The Girl Effect project staff in the Dhaka office told me that they tried to set up 'home tasks' where possible to keep the TEGAs involved and earning. These required the TEGAs to self-record themselves practicing various interview tasks. They were compensated for these, but at half the rate of the research days (500 BDT or around £5). However, setting these home tasks took money and time – both of which I was told were in limited supply by the Dhaka office staff, who said that they were hard pressed to manage the consortium partner research from data collection, through to analysis and writing up the findings.

The precarity of the project work particularly affected not only the TEGAs in the networks which received less work over all, such as Jessore, but also the more vulnerable TEGAs For example, whilst I was told by the Girl Effect team based in Dhaka that the TEGAs had been selected with the need to give opportunities to less privileged girls in mind, there was a fair amount of variation in the circumstances of the TEGAs. Some had been able to reach University level education, whilst others had had to leave school aged 12 or 13. Some were already married with children, whilst others had no dependents. Some came from families with access to more resources whilst others lived in significant financial insecurity. As Black feminist theorist Kimberle Crenshaw (1991) demonstrated with her concept of intersectionality, gender inequality intersects with other forms of identity-based oppression, such as race, class, and (dis)ability, to deepen discrimination in historically and socioculturally specific, but ever-shifting, ways. This is evident in the testimonies of the TEGAs, whose different identities meant that some gained more from their involvement, and were better able to overcome gender inequality, than others (see all Sections from 5.3.2 to 5.3.8 below for specific examples of this).

Alongside the precarity of the TEGA work, the uneven impact of the project on the TEGAs due to their differing identities, can be argued to weaken the extent to which the project can be said to have closed 'gender gaps', as the positive progress towards gender equality that the programme fostered was constrained by the inconsistent nature of the project itself and the varying circumstances of some of the TEGAs. This is demonstrated further with examples in the discussion below about the positive outcomes of the TEGA project that the TEGAs shared with me, divided thematically into 'economic opportunity', 'mobility, 'respect', 'confidence', 'challenge to discriminatory gendered practices', 'continuation of formal and informal education', and 'access to, and ability to use, digital technologies'.

5.3.2 Economic opportunity

Anticolonial feminist development critics have argued against narrowly conflating 'empowerment' with economic gain alone, as is often the case in international development discourse (Batliwala, 1993). As Cornwall (2016: p.356) argues this focus on "increasing women's access to resources rather than … with changing how they may have been taught to see themselves as women" may fulfil technocratic neoliberal ends by providing a measurable indication of 'progress', but cannot alone transform power relations. Yet in my conversations with the TEGAs the fact that TEGA was a paid employment opportunity was the benefit of being involved in the programme that they raised most often, as was the case when chatting with Sabila:

> I did not have enough income. I felt like leaving my studies. My mother is also not well. The best part was the TEGA money. (Sabila)

A study of 85 rural households in Bangladesh found that the women "were not allowed to work outside home", and therefore had a "no or low share in income/earnings of the family", instead being expected to take on the "burden of … household work" (Asaduzzaman et al., 2015: p.54). A larger scale study similarly finds that whilst women's labour force participation has increased in the last decade, women in Bangladesh are less than half as likely as men to enter the labour force (Solotaroff et al., 2019). The TEGAs living in rural areas told me that it was much more unusual for girls in their vicinity to have paid jobs than it was for boys to have paid employment. Furthermore, the TEGAs were paid 1000 BDT per day of research, which equates to around £10 – a significant amount of money for them. As the TEGA project provided 48 girls in Bangladesh with the opportunity to earn a good wage and participate in the labour force it can be argued that the project did in this regard go some way towards closing the 'gender gap'.

The majority of the TEGAs and their families experienced financial insecurity and had low-income levels. Most of the TEGAs told me that they were very happy to be able to contribute money to their family incomes and lessen financial burdens, including Murshida in Rangpur:

> The money that I'm earning can be used for my studies … So my mother doesn't have to incur extra expenses after me – this is my own allowance and I can use it for my expenses, like private tuition or college fees – I mean I can manage it on my own, and can also give some to my younger siblings or my grandparents sometimes. That's why my mother no longer has to bear this burden. Since I don't have a father – and my brother doesn't live here – my mother had to bear mine and my siblings' expenses. Now she no longer has to. She's able to save some amount – and that's beneficial for the household. (Murshida)

There is a gender wage gap in Bangladesh. Women earn an average of 21 per cent less per hour than men in non-agricultural industries (Kapsos, 2008), and more than one-third of women who work are unpaid contributing family members (Solotaroff et al., 2019). Not only did the TEGAs having a job contravene gender norms in Bangladesh, especially one outside of the home, but the fact that this was a relatively well paid position and that they could therefore contribute financially to their households also 'closed gender gaps' between what men and women in their families were expected and able to do.

Yet as section 5.3.1 on 'Precarious and Intersectional Empowerment' observed, the project work was not consistent, and this caused the TEGAs some financial distress, particularly in the networks which were assigned fewer data collection tasks:

> I want this work to be continued. I wait for it. I feel good while working. Continuation of work makes it easy to do. Long gap makes it difficult. Besides I maintain my expenses by this money. When work is not on for a month or more it becomes a problem. Consistency is needed. (Ayesa)

The precarity of the project work was felt particularly strongly by the TEGAs from lower-income backgrounds. Some of the TEGAs were able to save up their TEGA wages to buy things for themselves, whilst others had greater pressure on them to contribute to the living costs of their families. For example, one of the TEGAs, Rubi who we visited in Jessore told us that she was particularly struggling financially and that the unstable nature of the TEGA work had caused her a lot of worry. I recorded going to visit her in my reflective diary:

> This interview was a tough one … Rubi's mum is not well, which is worrying her. She told us through tears how much she has suffered as her father and brothers did not want her to be educated past grade nine. They wanted her to get married, but she refused. As a result they stopped paying for any of her education, food or anything. She has had to support herself, although her mum has always been on her side. The inconsistency of the work was a massive worry for her, and the thought of the project ending. It was really sad watching her crying – I wish there was something I could do more to help her. [Research diary 1; May, 2019]

Rubi's experience demonstrates that whilst over all it can be said that TEGA did make a contribution to 'closing the gender gap' through providing the TEGAs with the chance to engage in paid employment, and contribute to household expenses, thus furthering gender equality in Bangladesh

in these respects, it can also be argued that the precarity of the TEGA work, and the way this particularly affected the TEGAs from lower-income backgrounds, limits the extent to which the project can be said to have overtly benefitted the TEGAs. Certainly, it provided them with an income stream that had not previously been available, and this meant that many of them were able to contribute to their households in ways that were not necessarily expected from young women in their communities. But this income was not consistent, and this had a negative impact on the TEGAs, with some being affected to a greater extent than others.

5.3.3 Confidence

Despite the precarity of the work, and the uneven impact that this had across the TEGA cohort due to the differing intersections that made up their individual identities, one positive outcome from taking part in the project that was shared across the board was increased self-confidence. Almost all the TEGAs shared with that they had felt more confident in themselves since engaging in data collection work as a TEGA:

> After being TEGA, I have changed many of my physical things. You can see, previously, if a boy tells something bad, I could not reply to them and came back silently. But now, being a TEGA, something has come into me ... I feel confident. (Laughter...) Now I protest it gently saying, "What is your problem, are there any mother-sister in your home? (Nigar)

Naila Kabeer (1994: p.229), a Bangladeshi feminist and Professor of Gender and Development at LSE, writes that "empowerment strategies for women must build on 'the power within' as a necessary adjunct to improving their ability to control resources, to determine agendas and make decisions". By 'power within', Kabeer means confidence, self-esteem and self knowledge – the qualities that almost all of the TEGAs said they had strengthened through their involvement in the project. This emphasis on personal empowerment is in line with Freire's (1970) concept of 'conscientization', which posits that a "deep awareness of one's socio-political environment is really a precursor to the development of empowering skills and feelings" (Stromquist, 2002, p. 22). Far from just conflating empowerment with economic gains alone, feminist empowerment theorists, such as Kabeer (1994), argue that truly transformative rather than surface level empowerment begins with "individual conscientization (power within)", developed through collaboration and discussion with others, which then leads "to politicized *power with* others, which provides the *power to* bring about change" (Parpart, Rai & Staudt, 2002: p.4). Amin et al. (2016) found in their study, which involved 9,000 girls aged 12-18 across Bangladesh in an intervention to prevent child marriage through education, gender-rights awareness training, and livelihoods skills training, that most of the

girls involved lacked the confidence that would enable them to oppose unequitable gendered practices, such as early marriage, or to seek reproductive health services. In raising the confidence and self-belief of the TEGAs, therefore, it can also be argued that the TEGA programme successfully fostered the first crucial stage of transformative female empowerment, which can then lead to women and girls closing the 'gaps' in gender equality in their lives.

Yet in this regard, too, whilst there was strong evidence that the TEGA project did foster confidence, and thus 'empowerment within', in the TEGAs, this was not always evenly distributed amongst all of the young women. Runa, one of the Dhaka based project staff, told me that the TEGAs had been recruited through a competitive process. Once the areas for the TEGA networks had been selected, application forms were distributed through schools, colleges and youth groups asking for young women to apply. Runa said that these application forms asked, amongst other things, for the young women to "write about a time that they had showed bravery". The next stage of the application process involved selected applicants being invited to take part in group selection workshops which incorporated games, tasks and interviews. The TEGAs were selected on the basis of how well they demonstrated the '10 TEGA sparks' at these workshops, which Girl Effect had identified as being the core attributes of being a TEGA. The TEGA Sparks check-list of characteristics included:

- Courageous
- Curious
- Kind and Understanding
- Listening
- Non-judgemental
- Patient
- Reflective
- Responsible
- Tech smart
- Trustworthy

In addition, the vulnerability of the applicants was considered, including whether they lived in low-income or single parent households, whether they attended school, whether they identified as disabled and if they had been married at a young age. Around 100 young women applied to be a TEGA in each of the four locations, and of these 400 or so potential TEGAs only 48 were chosen. Yet despite undergoing this competitive selection process, some of the TEGAs found their roles more of a challenge than others. Runa told me, for example, that the TEGAs based in Dhaka had,

in general, had greater access to education and exposure to technology, and therefore found their TEGA roles easier than some of the TEGAs from more rural areas. She said that "they are better at doing the research because they are used to having smartphones. They are a bit smarter than the other TEGAs". One of the field officers that I met in Dhaka, Hamida, told me proudly that the two TEGAs she looked after were the "best performing".

The TEGAs were awarded different grades for their Market Research Society qualifications depending on how well they had performed in the research tasks, with some receiving a Distinction. The Market Research Society (MRS) decided which TEGAs received which grades based on the progress reports submitted to them by the project team in Dhaka. Also, in the summer of 2019 there were a number of summer awards giving ceremonies at which the project staff awarded some of the TEGAs with 'TEGA Sparks Awards' prizes. Runa told me that this had not gone down well amongst the TEGAs who did not receive awards:

> During the ceremonies in the summer only certain TEGAs were given the awards for being the 'best' at being a TEGA. Some of the TEGAs who didn't get awards got angry about it, particularly the girls in Jessore. They were shouting about it … (Runa)

What was notable was that it was the TEGAs who had been able to access higher education who performed the best and received the highest scores and prizes. As Tahmima, one of the other Dhaka-based Girl Effect team members, said: "It's kind of connected – the girls who got Distinctions, most of them are currently studying in Universities". This was frustrating for Tahmima, who always tried to submit more of the TEGAs for Distinctions, but the MRS would only award a few of the young women with these higher grades. Meanwhile, the TEGAs who had not been able to continue their education struggled. This is reflected in the words of Momena, who felt concerned by her performance compared to the other TEGAs:

> On my first day of training I was very scared. Momtaz and I were the youngest of them. There is also a World Vision programme in our area, you can be a member of it. You can be smarter if you work there. But I never went there, Momtaz did. She is very smart. So, when I first went to training I kept thinking that I was the weakest among them. I was scared. It got better gradually. But on my first day, I told others that I am not going to be a TEGA for sure because I am the weakest one … Sometimes I feel scared while working there … because I am weak in my studies. Most of them are older than me. People from my neighborhood also work there. I feel a bit scared in front of them. I think maybe they can do it, but not me. (Momena)

This excerpt from Momena's interview shows that whilst for many of the TEGAs the project enhanced their confidence, for others being compared to the rest of their cohort also affected their confidence negatively. This is further evidence of how the differing identities and situations of the TEGAs meant that the project had nuanced outcomes with regards to 'empowering' the TEGAs, and that therefore whether the project did, or did not, close the 'gender gap' is not a conclusive matter.

5.3.4 Respect

Part of the reason that many of the TEGAs did report feeling more confident as a result of their involvement in the TEGA project was that they felt more respected by their families and communities due to their new roles as 'TEGAs'. Many of the TEGAs told me that being a TEGA had led to them receiving a greater level of respect, and garnering a greater level of authority than they had had previously:

> People approach me and say, "Dear, what kind of work are you doing? Do see if you can find us something similar!" This kind of acceptability – the fact that they respect me more now, listen to my opinions, and agree with me, and inform me of their decisions. It has commanded people's respect – in the family, in society. Those are the kinds of benefits I'm getting. (Sharmin)

Kabeer et al. (2011: p.7) write that "family and kinship relations in Bangladesh are organised along corporate patriarchal lines, with authority vested in the senior male household head". A situation assessment of children and women in Bangladesh conducted by UNICEF (2009) concluded that male family members usually make the decisions, especially those relating to economics and women's health and employment. With regards to communal decision making and political participation, Bangladeshi women cite a number of barriers including family responsibilities, lack of education and finance, violence, harassment and lack of safety and security (Ara and Northcote, 2020). Becoming a TEGA, however, enabled the participating young women to gain a position of greater authority in their families and communities. People listened to their thoughts and respected their opinions. This, then, is a further case of how the TEGA project can be considered to have brought about the closing of 'gender gaps'.

Yet, once again, this is not the case for all of the TEGAs. Whilst many did feel more respected, others told me that their new role in the household and community had provoked a backlash from some of the other members of the household:

> My brother chastises my parents, saying, "She's a girl and she's working!" He lives abroad and works …. Maybe he thinks I should be married off for my safety because boys here harass girls. He worries for my safety. But he doesn't consider the fact that I'm studying. He thinks girls don't need to study as much because they can't work anyway … my brother doesn't support me – our parents and even his wife support me wholly, but he doesn't approve. (Lamia)

As Lamia's experience shows, not every TEGA received greater respect as a result of their involvement in the project. Once again it can be said that the empowerment the TEGAs experienced varied due to their personal circumstances and identities, and that therefore that the extent to which the project 'closed gender gaps' and empowered the TEGAs was non-linear and dependent on a variety of factors.

5.3.5 Challenge gender discriminatory practices

The increase in confidence, and higher status in the household and community, that many of the TEGAs did experience, however, lead some of the TEGAs to take steps 'to' challenge gender discriminatory practices directly affecting them. For example, one of the TEGAs, Taslima, had been able to leave her husband who was abusing her despite social pressure upon her to stay. When I met Taslima she was at home with her parents and grandparents having left her in-laws house where she had been living with her husband. When I asked her if she felt that the TEGA project had had a positive impact on her life she said:

> The main benefit is that I came from my husband's place … even if they send me back I have that confidence in me and I earn too. At least I can bear my expenses. At such a young age I'm doing this job and got my confidence and strength. (Taslima)

The Bangladesh Bureau of Statistics (2016) reports that 1 in 2 women in Bangladesh aged 15 or over who have ever been married have endured physical and/or sexual violence during their lives, and 1 in 4 report experiencing such violence in the past 12 months. Studies note that when women in Bangladesh challenge the patriarchal gender roles of male authority and provider vs. female

obedience and domesticity then violence is widely regarded as an acceptable punishment (Yount et al. 2013; Schuler et al., 2011; Schuler et al., 2012). Being married at a younger age, or in a marriage that has dowry demands, is also shown to increase Bangladeshi women's risk of experiencing intimate partner violence (Rahman et al., 2013; Dalal, 2009; Naved and Persson, 2008). In Taslima's case, being a TEGA had provided her with the confidence and financial means to leave her abusive relationship, and thus directly confront gender-based violence.

Some of the other TEGAs shared that they had also been able to successfully advocate against unwanted marriages whilst being a TEGA:

> After my 10th grade my parents want me get married but now they don't talk about it. All this happened because of TEGA. (Sadia)

Sadia was not ready to be married, and she told me that being a TEGA had meant that her parents had stopped pushing her about marriage, as she now had a job that provided financial benefits for the household as well as helping her to continue her education. A recent UNICEF (2020) report states that whilst the rate of child marriage in Bangladesh is declining, the country still has the highest prevalence of child marriage in South Asia and the 8th highest in the world, with 51% of women aged 20 to 24 years having been married before the age of 18. The findings from the 2011 National Demographic Health Survey (NIPORT, Mitra and Associates and ICF, 2013) show that only 4% of boys were married before the age of 18. However, there are concerns that the climate crisis could increase the rate of child marriage, as studies have found that child marriage is a coping strategy employed in coastal areas of Bangladesh in response to their increased vulnerability to climate related natural disasters (Asadullah et al., 2020). The COVID-19 pandemic has led to a sudden rise in girls dropping out of school and entering into child marriages in Bangladesh in light of school closures and job losses (Sakib, 2021).

The fact that TEGA helped some of the TEGAs, including Sadia, to avoid being married before they were ready, as well as escape abusive relationships, provides further weight to the argument that the project 'helped close the gender gap'.

However, as with other positive project impacts discussed so far, the TEGA project did not affect all of the TEGAs evenly. The precarity of the project work intersected with the individual circumstances of some of the TEGAs to mean that they struggled to contest gender discriminatory practices, even with their involvement in the project. For example, Momena told me that whilst she

did not want to get married yet, the lack of consistency in the work schedule and her own family circumstances meant that her mother did not see TEGA as an effective barrier to her marriage:

> There was a girl working with us, now she has resigned after getting married. Similarly, I listened that someone said to my mother that, "It is not an issue for her. This TEGA job is active for some months only and it is not continuous. So, she can easily resign from it. (Momena)

As Hunt et al. (2019: p.1) argue following their gender analysis of the rise of the gig economy, "on the whole it represents the continuation (and in some cases deepening) of long-standing structural, and gendered, inequalities". In Momena's case, and for some of the other TEGAs too, we can see that the precarity of the TEGA project and the gendered social norm of early marriage for young women in Bangladesh led to some of the TEGAs being unable to effectively resist gender discriminatory practices in their own lives. This further weakens the extent to which the project can be said to have unequivocally 'closed gender gaps'.

5.3.6 Mobility

One way in which the TEGA project can be said to have closed the 'gender gap' across the TEGA cohort is by enabling the TEGAs to spend more time outside of the home. As Naved et al. (2007: p.63) argue "restricting the freedom of movement of unmarried adolescent girls outside the home is common in Bangladesh". Kabeer et al. (2011: p.3) state that Bangladeshi women's "devalued status within the family is reinforced by purdah norms which restrict their mobility in the public domain, confining them to reproductive responsibilities and those forms of productive work that can be carried out within the home". This is in comparison to adolescent boys in Bangladesh who are afforded a far greater level of mobility outside of their homes. Therefore, for many of the TEGAs, a key benefit from their participation in the project was being able to go outside of their homes and socialise with other people, particularly girls their own age:

> In our area, we are not used to going outside much. But being a TEGA we had to go outside and meet with others. We got to visit new places, interviewed a lot of unknown people. We had to face different sorts of person as well. (Julee)

In this regard, too, it can be argued that TEGA went some way towards closing the 'gender gap' in the TEGAs' lives, by providing them with the opportunity to spend more time outside of their households, thus challenging the social norm that girls should be confined to the home. Yet it must

be remembered that, as already discussed, the uneven nature of the TEGA project is such that some of the TEGAs were able to take part in more research than others. For some, they received more 'home tasks', which did not enable them to be more mobile outside of the home, due to the fact that there were fewer research tasks given to their particular networks. Furthermore, the individual circumstances of some of the TEGAs and higher levels of vulnerability that they experienced meant that they were not always allowed to take part in all of the TEGA activities. This was the case with Tasnina, who was not able to attend one of the training and certificate giving sessions that took place in Rangpur in June, as this excerpt from my reflective diary records:

> This morning we headed off on an hours drive in an auto to the training venue. It is some sort of government building. Inside all the TEGAs sat waiting patiently in a semi-circle of chairs and sofas. They all smiled and waved as I came in. They had all dressed so smartly in bright colours … I realised that Tasnina wasn't there. This is sad, as she is suffering a lot from domestic violence and abuse at the moment. Apparently her husband took her phone away and said she wasn't able to attend. She has left the in-laws house and gone to her parents' house. I am very worried for her, as she is pregnant and this makes things more complicated here as to whether she will be allowed a divorce … (Research diary 1; June 2019)

As this excerpt from my diary records, whilst for many of the TEGAs their participation in the project did enable them to spend more time outside of the home and therefore challenge gender norms in this respect, for some this was not the case. For Tasnina, whilst she had been able to leave her in-laws and go to her parents' house, she had not been able to attend the TEGA training session and awards ceremony. This highlights how the extent to which the TEGA project closed 'gender gaps' was situational and shaped by personal circumstances.

5.3.7 Continuing Formal and Informal Education

For the TEGAs still in education, being able to continue with their studies was one of the main positive outcomes of their involvement in the programme that they raised. Through being a TEGA they had the financial means to do so, and were able to persuade their families that continuing their education would lead to better chances of further employment in the future. The confidence that they gained whilst working as TEGAs also helped them to push back when their families disagreed:

> I – got enrolled into Intermediate, but didn't continue because we couldn't afford the books. I'm going to enroll again after this year's results come out. I have an income now, so I want

to save some up and then start. I'd wanted to study since childhood, and I even got enrolled – but I couldn't buy the books and couldn't continue. (Asma)

And for my family, they did not want me to study forward due to financial crisis but now they don't think like that. Now they are always supportive with everything I want to do. (Farjana)

In Bangladesh there have been a number of efforts to increase the enrolment of girls in secondary schools, including conditional cash transfer (CCT) programmes such as the Female Stipend Programs. This has led to more girls now being enrolled in secondary school than boys, rising from a 14% enrolment rate in 1990 to 72% in 2016 (Chisamya et al., 2012). However, Xu et al. (2019: p.1) have described this reversal of gendered outcomes as an "illusion of gender parity in education", as behind their higher enrolment rates, girls experience higher dropout rates, lower pass rates, and lower performance rates than boys at secondary level in Bangladesh. Xu et al. (2019) attribute this paradox in part to the low female ratio among teachers, unfavourable gender attitudes of teachers, and the lack of a gender-appropriate school curriculum and facilities, but also due to the fact that within households resources for extra tuition and other educational resources will be directed towards boys to a greater extent than it will towards girls. Outcomes for girls at secondary level also vary by area, with the highest dropout of girls taking place in rural areas (Huq and Rahman, 2008).

Yet whilst some of the TEGAs were able to reach University with the help of their TEGA wages, this was not the case for all of the TEGAs. Some of the TEGAs had had to drop out of school before they joined the TEGA project, due to their individual circumstances. These young women had had to leave school in order to be married. They largely came from lower-income families. As previously discussed, some young women had also entered into marriage and left school during their time in the project. For all of the TEGAs, however, whether in full time education or not, being a part of the TEGA project gave them previously unavailable informal learning opportunities, if not formal educational access. All of the TEGAs told me that they had learnt a great deal from their time as a TEGA, especially in relation to the different topics that they gathered data on:

I got to know a lot things from the research. Before I did not know the types of sexual harassment. And that over the phone a person can be sexually harassed. I did not know that touching a woman without consent is a sexual harassment. (Tahmina)

> The training was good. I liked all the training programmes. Everyone comes over, we learn a lot of things, it's fun to learn together. (Shamima)

In this respect, it can be said that TEGA did contribute to some extent to closing the 'gender gap', as in providing the TEGAs with opportunities to continue their education, either formally or informally, it went some way towards closing the gendered divide in educational opportunity in Bangladesh in the lives of these young women.

5.3.8 Access to, and ability to use, digital technologies

In particular, TEGA provided new opportunities to access and learn the skills to use digital technologies. For many of the TEGAs it was the fact that the programme involved working with smartphones that made the project especially appealing to be a part of:

> I have benefitted in the sense that I… practically knew nothing about technology. I had no technological skills whatsoever. Thanks to TEGA, I've learnt about it. (Syeda)

In Bangladesh, 58% of women vs. 87% of men own mobile phones, and 7% of women use the Internet in comparison to 18% of men (After Access, 2018). Croxson and Rowntree (2017: p.33), in their study of potential internet adopters in Bangladesh, found that gaining permission from gatekeepers was a barrier that affected "almost exclusively women, as men rarely have to ask for permission to use the internet and did not feel they had to justify their use of mobile internet to others". They found that anxieties over the negative influence of the Internet on women and potential risk for family reputation, as well as the social expectation of male authority within the household, meant that women were less likely to access digital technologies (ibid.). In partnership with Vodafone, Girl Effect carried out TEGA research on 1,371 adolescent girls' and boys' access to digital technologies in India, Malawi, Nigeria, Rwanda, Tanzania, the USA and Bangladesh. The TEGAs in Dhaka and Jessore in Bangladesh were involved in this study. The research found that 53% of the adolescent girls spoken to in Bangladesh owned a phone in comparison to over 80% of boys. There were a range of barriers identified as to why girls are less likely to have phones than boys in Bangladesh, the overarching one being the "strong negative social judgement for being associated with a phone, which often appears to echo the limited mobility that they experience in their daily lives" (Girl Effect, 2018: p.56). Girls in Bangladesh reported having to ask for permission to use phones to a greater extent than boys, had to rely on male gatekeepers such as their fathers and brothers to buy them or lend them phones, and were not as knowledgeable as to how to use phones to their benefit as a result of their limited access and usage (ibid.).

In giving the TEGAs access to smartphones, and training them in how to use them, TEGA can also be said to therefore have gone some way towards closing the digital 'gender gap' in Bangladesh. Samia, one of the TEGAs, told me that she had learnt so much that she was now the go-to tech smartphone expert in her household:

> The TEGA project enhanced my skill in using smartphones. If my family face problems to use smartphones, they ask me. (Samia)

Whilst for some of the TEGAs, therefore, the project can be said to have gone some way towards closing the 'gender divide', this positive outcome was also experienced more strongly by some of the TEGAs over others. the TEGAs from higher income backgrounds were also able to save up and buy their own smartphones, rather than only having access to the TEGA phones. This is significant because the TEGAs were not allowed to use their TEGA phones for personal usage, aside from messaging the other TEGAs or the project staff on WhatsApp. This was due, I was told by the project staff, to concerns that the TEGAs would use up their paid-for data too quickly, or fill up their phone memory – both of which would impair their ability to carry out the TEGA research. Safeguarding issues were also a concern, as Girl Effect were worried that the girls might be vulnerable online and did not want to put the TEGAs at any risk through their involvement in the programme. The TEGAs able to save up their TEGA wages and buy their own personal smartphones, however, could apply all of their newly learnt smartphone skills to look up homework information, use Facebook or watch YouTube videos:

> Because… now that I have a phone, I'm able to do so much with it, learn so much. I'd never had a phone of my own before. (Puja)

Meanwhile, the TEGAs in a less privileged position were unable to do these things as they were only permitted to use the TEGA phone for the TEGA work and communications. One of the TEGAs, Farida, told me that she had decided to test these rules, but that it had not ended well for her:

> They told us not to update this phone for other Apps. Once I had an accident and wasn't feeling very well. So I installed Imo App in that phone and the TEGA App instantly disappeared! Yes, I had to tell this to my field officer. Because of this TEGA App I couldn't work for three long months. I returned to work after three months … You need a password

> to install TEGA App and they know the password. After three months they gave it to me.
> It was actually my penalty. (Farida)

As this example demonstrates, a digital divide was formed between the TEGAs from more privileged backgrounds who were able to utilise the digital skills that they gained through their involvement in the project to their benefit, and the TEGAs from less privileged backgrounds who were not. This finding resonates with those that arose from Faith's (2018) research with low-income and insecurely housed young women in the UK. The young women that Faith worked with faced significant challenges in maintaining, charging and financing their mobile phones due to the structural inequality that they experienced. These 'maintenance affordances' directly shaped the capability of these young women to use their mobile phones to live lives that they valued. In a similar vein, the TEGAs who experienced the greatest structural vulnerability were also unable to purchase a personal phone, and maintain it, in order to enhance their capabilities, whilst the TEGAs facing fewer structural constraints were able to do so.

The TEGAs who were able to purchase and maintain their own smartphone devices also then had further opportunity to develop their digital skills in order to use these devices in line with their aspirations. As Eynon and Geniets (2016: p.464) found in their study of digitally excluded young people and their digital skills, ensuring "quality of access to technology is central in supporting digital skills and a range of uses of the internet", alongside providing supportive networks for learning. The young people they interviewed faced restricted personal access to the Internet due to financial and social constraints and institutional blocks. This affected their digital skills by limiting their ability to engage in exploratory learning online and also by making using the Internet seem like a negative and frustrating experience (ibid.). The TEGAs without the ability to buy their own smartphones faced these constraints too. However, the digital skills training that all of the TEGAs received (see Chapter 4, Section 4.6) only went as far as covering what was necessary for the TEGAs to carry out their roles as TEGAs successfully. This means that even the TEGAs who were able to buy their own phones would have to engage in experiential learning as to how to use their devices in these broader ways, without the supportive networks that Eynon and Geniets (2016: p.464) found to be so vital to young people's digital skills development.

As O'Donnell and Sweetman (2018: p.219) assert, "the digital divide is much more complicated than any neat binary comparison between male and female ownership and online access" as "gender intersects with many other aspects of difference and disadvantage". The TEGAs may all have been young women, but their individual circumstances varied widely and this altered the extent to which they were able to access phones in a way that was meaningful to them. This finding adds further

weight to the overarching finding that whilst the TEGA project did 'close the gender gap' in some ways for some of the TEGAs, it also can be said to have created new divides or 'gaps' between the TEGAs from the less privileged backgrounds. As such it cannot be said that the 'gender gap' was fully and evenly closed in linear ways amongst the TEGAs as a whole.

5.3.9 Non-instrumental outcomes for the TEGAs

Whilst the evidence to support the claim that the TEGA project 'empowered' the TEGAs is therefore mixed and dependent on the precarity of the TEGA work and the individual positionalities of each of the TEGAs, there were some positives that arose from the TEGA project that do not map so easily onto this idea of 'closing gender gaps' or addressing gendered inequalities. As Arora and Rangaswamy (2013: p.89) write in relation to the evaluation of ICT4D projects in the 'global south', "data that does not directly address project-based outcomes is sidelined", despite the fact that this risks failing to capture the myriad ways that ICTs are used by people in the majority world, including for leisure and entertainment alongside the "overtly utilitarian". Their call to "extend beyond a conservative understanding of developmental value" (ibid.) applies to this research too, as the TEGAs listed a range of different positive outcomes from being a part of the TEGA project that do not tick any instrumental boxes, but nevertheless were a key reason that they had enjoyed being a part of the programme. For example, all of the TEGAs said that being a part of the project had been fun, and that they had made new friends and had new experiences:

> My first experience was great, because there were lots of girls from other villages – we didn't know each other. After the first training, we introduced ourselves. Gradually, we became friends and at one point we all became a team. (Tanjin)

> There were a lot of fun and games between the projects. It was something different and overall fabulous. (Mehazabien)

These non-instrumental beneficial outcomes for the young women engaged in the TEGA project do not provide further weight to the argument that the project 'closed gender gaps', but they do demonstrate the positive contribution that the programme made in their lives beyond 'gender and development' related goals. The fact that being a TEGAs was 'fun' and enabled them to make 'friends' is also worthy of consideration, and from an anticolonial feminist perspective negates viewing the young women involved in TEGA through a narrow 'developmental' lens as 'beneficiaries' rather than agentic young women in their own right.

<u>5.3.10 TEGA as a 'Springboard'</u>

It is also worth considering the fact that the TEGA programme may have continued to have positive implications for the TEGAs beyond the six-month duration of my fieldwork, or the two-year project timeline. The Girl Effect senior staff in London told me that this project was supposed to be an empowering 'springboard' for the TEGAs that would enable them to go on to find future opportunities with the skills that they had learnt. For example, Victoria said that the TEGAs who had been involved in TEGA networks in other countries had "gone on to do other things" and that the project "was never about employment for life". The TEGAs had a wide variety of dream future careers, from being a lecturer, to an agricultural specialist, to a judge, to a nurse, to a teacher, to a seamstress, to a musician. Some of the TEGAs did think that some of the skills they had learnt during the project would be useful to them as they pursued their dream careers. For example, Doly told me that she wanted to be a police officer, and that the knowledge she had gained about issues facing girls in Bangladesh, as well as the interpersonal skills she had developed through working with other young women, would help her be effective in this role:

> Police Officers deal with lots of girl problems and I'm doing that as well. I'm working with girls now. (Doly)

Yet Doly, as well as many of the other TEGAs and in-country staff, were unsure whether this would work out in reality. In the rural areas of Bangladesh there simply aren't that many jobs available for young women. In urban areas there are more opportunities, but these mostly exist in low-paid, precarious, and insecure industries such as the garment sector. The TEGAs and field staff spoke of how it can be difficult to secure good jobs, as often large bribes are required to be paid to local officials. Many of the TEGAs simply wouldn't be able to afford these bribes. Doly was one of the TEGAs who raised this issue:

> I want to complete my studies and to get a job as a police officer. But my husband said what I'm doing right now is fine. I don't need to do anything else. At best I can teach in a primary school. I always wanted to be a police officer. But for that it requires 6 lac for lobbying. (Doly)

Aside from the barriers to employment of bribe paying and gender roles in the household, Doly's words also show that not being able to access higher education is an impediment to being able to apply to many higher paying jobs. As previously discussed, however, the end of the TEGA project and the income that this provided the TEGAs would mean that many of them would not be able to

afford to continue and complete their education. All of the TEGAs told me that they wished they had had greater support to help them find their feet after the end of the programme, for example by connecting them to other organisations that might want to employ them, or providing training that will help them find jobs in their local areas:

> After completion of the project we are getting certificate and gaining lots of experience. Is there any further use or we are done here? ... How can we use this knowledge in other sectors? … Another matter sister, In Bangladesh there is scarcity of work. We twelve persons were chosen from many through games and we have gained knowledge. If they help us to gain future prospects, it will be good. The project has been completed in a short time. If they help us gaining other organisation jobs, it will be a thing to tell everyone how TEGA changed our lives. (Safa)

> If the TEGA project extends it would be great. Usually TEGA works for training us up. But if they could provide other different trainings like learning to use computer, how to apply for a job etc. then I think it would be helpful for us in the long run even after TEGA. (Ara)

Anticolonial feminist theorists have criticised the manner in which international development organisations use the word 'empowerment'. Despite the term being rooted in majority world women's co-operative organising and transformation of structural power relations, in many development projects the word 'empowerment' is "often couched in individualistic terms, with the ultimate aim being to increase individual choice and capacity for self-reliance" (Luttrell et al., 2009: p.6). Girl Effect, and other development organisations purporting the idea that "investment in the skills and labour of young women is the key to stimulating economic growth and reducing poverty in the global South", have been critiqued for perpetuating this neo-liberal "empowerment discourse" which "taps into ideals of individual freedom" (Hickel, 2014: p.1355). In doing so, this 'girl effect' approach "shifts attention away from more substantive drivers of poverty – structural adjustment, debt, tax evasion, labour exploitation, financial crisis, etc" whilst "women and girls are made to bear the responsibility for bootstrapping themselves out of poverty that is caused by external institutions" (ibid.). Is the training of the TEGAs in digital data collection so that they can become 'employable', without addressing the structural barriers to women's education and employment in Bangladesh, a further example of Girl Effect "permitting the perpetuation of a 'business as usual' agenda'" through "concentrating on individual agents, without attention to structures (Chant, 2016: p.324-325)?

It cannot be denied that the TEGA project did bring a range of different positive benefits to the lives of the TEGAs. Many of these, although not all, can be argued to be benefits that overcame, or

helped to overcome, gendered inequalities in the Bangladeshi context. As such, it can be contended that the TEGA project did, at least in some ways, contribute to the closing of 'gender gaps' in the lives of the TEGAs. However, as the discussion above has shown, the effect of the project varied amongst the TEGAs significantly. Those from less privileged backgrounds, or those experiencing enhanced vulnerabilities in other ways, struggled to benefit equally from the programme. This was exacerbated by the precarious nature of the TEGA work, which was dependent on the data collection needs of the consortium partners and was not uniformly disseminated across the four TEGA networks or the 2 year project duration. Furthermore, there were doubts about the extent to which the progress the TEGAs had made during the project, in terms of being able to continue to their education, would continue beyond the end of the programme, due to a lack of access to further opportunities to earn an income. As such, these findings complicate the narrative that the TEGA project brought about greater gender inequality, painting instead a more nuanced picture of how the project brought about change in the TEGA's lives to different extents.

5.4 Closing the 'gender gap' for Girls in Bangladesh

So far this chapter has focused on the TEGAs and the extent to which it can be argued that the TEGA project brought about positive change in their lives as young women that can be considered exemplary of 'closing the gender gap'. However, the TEGA project did not only seek to benefit the TEGAs. As previously laid out in section 5.2, Girl Effect (2019: p.2) saw the main contribution of the programme lying in the way that they "helped organisations design more effective and targeted initiatives that are having real impact in the lives of girls and their communities". This section will explore this notion that the project had a "real impact in the lives of girls and their communities" by sharing the ways in which the participants felt the project had, or had not, 'closed the gender gap' for girls in Bangladesh through data.

It is important to note that, in the TEGA's opinion, the project tangibly benefitted themselves to a greater extent than it had benefitted other young women around them. This came across during our one-on-one interviews, but was reconfirmed during the participatory action workshops that I and ten of the TEGAs collaborated on in Rangpur. One of the activities that I facilitated was 'The Four Corners Activity'. Each of the four corners of the venue where the first participatory action workshop took place had been labelled with a different response - strongly agree, agree, disagree, or strongly disagree. My research assistant, Rakiba, then read out a series of statements (all findings from the interviews with the young women) and the TEGAs then moved into the corner that represented how they felt about that statement. Rakiba and I then went over to the different corners where the young women had chosen to stand and asked them why they responded in that way.

When we read out 'I personally gained a lot from being in the TEGA project' all of the TEGAs moved into the strongly agree corner. When I asked why, they gave similar answers to those given in the interviews – that they had gained financially, learnt new things, and been able to engage with technology. However, when 'My community benefitted from the project' was read out, the response was divided. Some of the young women stood in the 'agree' corner, whilst others stood in the 'disagree corner'. However, eventually those in the 'disagree' corner decided to join the others in the 'agree' section. When I asked about the hesitation to agree, Tanzila, one of the TEGAs, said:

> We do agree that they benefitted but not a lot … they benefitted in a few ways. (Tanzila)

When I asked if they felt that the TEGAs had benefitted more strongly from the TEGA project than the young women in their communities, however, they all instantly moved to 'Strongly agree'. This interaction demonstrates how, in the opinion of the TEGAs, the positive benefits of the project were mainly experienced by themselves rather than girls living in their area. This is somewhat at odds with the opinions of the Girl Effect staff based at the London headquarters, who were keen to emphasise the impact of the TEGA project on the Bangladeshi young women living in these communities via the consortium partners' projects in these areas. An additional disparity is observable in the fact that the TEGAs and the respondents did not mention any improvements to local development programming via the consortium partners as a result of the data gathered by the TEGAs. However, some of them did mention a few other positive outcomes from the project for young women living in their communities. These are discussed below.

5.4.1 Forming friendships

Whilst Girl Effect state that the main way that the TEGA project has a 'real impact' on the lives of girls and their communities is due to the generation of improved data that enables the creation of improved development projects, in my discussions with the TEGAs and the respondents that they had interviewed for the TEGA research projects a number of other positive outcomes for this cohort came to the fore. For example, the TEGAs shared that the respondents enjoyed being spoken to and having someone to confide in. They said that new friendships had formed between the interviewees and interviewers:

> I really like them. We are frank with each other. We have become friends. Before it I had few friends but now after working here all I have worked with have become friends. People exchange greetings, it is a big gain as nobody knew me before. We are here after my mother's marriage but in this one and a half year people got to know me and I know them. (Tareen)

This was confirmed by some of the young female respondents that I spoke to. For example, Nadia told me:

> I liked being interviewed by a girl my age – it was more like a friend. I like to share my views and dreams with people. (Orchita, 19 years old)

In a review of the literature on research participant experiences, Barbara Kathleen Dennis (2014) argues that there is relatively little available empirical evidence regarding the experiences of research subjects. Research available on the outcomes of participating in research on sensitive or traumatic subjects, which the TEGA research did sometimes entail, suggests, however, that participants can find being able to discuss their challenges therapeutic (Hebenstreit and DePrince, 2012; Lowes and Gill, 2006). In particular, qualitative interviews, which was the main TEGA methodology, are reported by interviewees to give them "the validation of being understood and of having one's story heard in full without judgement" (McCoyd and Shdaimah, 2007: p.347). This ties in to feminist theories of empowerment as being about majority world women working 'with' one another to develop their consciousnesses and belief 'within', and then using this individual strength collectively 'to' transform structural power relations through action that challenges the status quo (Kabeer, 2001; Rowlands, 1997).

In bringing the TEGAs and young women in their communities together to discuss their individual gendered experiences, i.e. empowering them 'within' through spending time 'with' one another, perhaps this could be seen as evidence of the formation of the foundation for these young women to go forward and 'to' challenge gender discrimination. However, no evidence of the TEGAs and the respondents working together in this active way was forthcoming. Also, it must be remembered that, as discussed in Section 4.6 in Chapter 4, the interviews were short, and each TEGA only conducted a few with a small number of young women per research project. Furthermore, as already outlined, there were a limited number of research projects per network. Despite these limitations, it can be said that in some small way in giving these young women the space to discuss, reflect and build solidarity together, the TEGA project made a contribution towards greater gender equality, and 'closing the gender gap', in Bangladesh.

5.4.2 Giving Gifts

In addition to the forming of friendships, the TEGAs added that some of the respondents were happy with the small gifts that they received for taking part in the interviews (these gifts were usually small bars of soap or sanitary pads):

> They think, there are so many girls and boys in our village, and yet they chose me – it makes them feel special. And once the interview ends, we give them a gift, we take selfies with them. It makes them very happy, that we're giving them gifts, taking pictures with them, asking good questions. They love it. (Elora)

> The sisters (field officers) give gifts to the respondents which makes them very happy. The gifts are also of good quality, costing about 150-200 Taka. This actually works as an incentive, so they look forward to the next project. (Monira)

Research compensation is an ethically controversial subject. As Collins et al. (2017: p.92) point out, incentivisation may prompt "structurally vulnerable populations to engage in low or high-risk research primarily out of financial need", which could be argued to go against the ethical research requirement of freely informed consent to participate. Yet some researchers have argued that financial recompense is justified, especially in cases where the research participants have given time they would have otherwise spent on paid work (Meth, 2003; Van Blerk, 2006). McDowell (2001) also contends that giving participants gifts or money at least goes some way towards addressing the disparities of wealth and power that research entails. Yet whilst Meth (2003) argues that compensation may lead to more honest encounters by bringing to the fore the fact that research is an unequal exchange, Cook and Nunkoosing (2008) argue that the commodification of participants' knowledge can lead to responses becoming rehearsed and routine, due to the creation of a "culture of expectation that research involvement will always carry a financial reward" (McKeganey 2001: p.1237). Hammett and Sporton (2012) note that as a result of some of the ethical challenges involved in compensating individuals directly, some researchers instead choose to fund community projects in the areas that they work, in the hope that this will be less transactional, sustainable and more equitable (Binns, 2006; Brydon, 2006). Yet Hammett and Sporton (2012: p.501) point out that as this approach can "entrench local power dynamics, exacerbate intra-community marginalisation and damage trust towards visiting researchers if the funded projects are never realised", there can be no one easy fix to the ethical dilemma of reciprocity in research, and instead each research project must negotiate this dilemma in a contextually sensitive, considerate manner. After all, as Ansell (2001) points out, research encounters are unavoidably bound in the unequal world in which we live, and therefore this debate over whether to compensate participants or not is borne from and reinscribes this inescapable reality, no matter what final decision is made.

The TEGAs felt that the gifts that they gave out had kept the participants keen to take part in further research, but also had made them 'happy'. The respondents that I spoke to did not mention the gifts when I asked them about their experiences taking part in the TEGA interviews. Whether this was because the gifts were not important to them, or whether it was because they were expecting me to also give them a gift and did not want to seem presumptuous, was not clear. As I did not speak to all of the respondents, it is difficult to draw an absolute conclusion on this point. It is also not evident the extent to which the gift-giving, even if it did make the respondents 'happy', can be argued as having contributed to 'closing the gender gap'. Although as they were sometimes menstrual pads, an item that women and girls are not always able to access easily in Bangladesh (ICDDR, 2014), it could be possibly argued that in a minor way these items contributed towards addressing this gendered issue.

5.4.3 Learning through research

Whilst the respondents did not mention the gifts that they were given during the interviews, a positive outcome that they had experienced due to being part of the TEGA research that they did bring up was the fact that they had been able to learn new things from being interviewed:

> I got to know lots of things from the interview – I got to learn about how to take care of my health and what I should eat … (Bidisha, 18 years old)

This was also recognised by the TEGAs, many of whom said that they felt the respondents became aware of certain topics and more "conscious" of the importance of gender equality issues such as girls' education through being interviewed:

> When they answer the questions… when we read out the questions to them, they're going to say something in response, and then they'll realise that since such questions are being asked, they have to become conscious about education – through the questions, they'll be aware. They'll understand that education for girls is imperative. (Anika)

As previously discussed, in Section 5.3.7, educational opportunities are not evenly available to both boys and girls in Bangladesh, so the fact that young women being interviewed by the TEGAs were able to learn, even if informally, some information on topics of benefit or relevant to women specifically, such as maternal nutrition, means that it can also be argued that in this regard the TEGA project may have gone some way towards 'closing the gender gap'. Although, once again it is

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important to bear in mind that in many cases each respondent was only interviewed once for the TEGA research projects, and that each interview was fairly brief. Furthermore, some of the topics were only researched by some of the networks. As such, whilst the small number of respondents that I spoke to, and some of the TEGAs, felt that there had been an educational outcome for the young women, and others, that they interviewed, it is fair to say that this is limited in scope.

5.4.4 (Gender) Role models

A further point raised by the TEGAs, although not the respondents themselves, was that they felt that the respondents had been inspired by seeing them working to also seek out further study opportunities to enable them to learn more, so that they would one day be able to find jobs similar to TEGA:

> The best part it, our friends were tremendously helped by this programme. They were very inspired and interested in getting jobs. (Israt)

As this quote from Israt, one of the TEGAs, demonstrates, some of the TEGAs believed that they provided role models for other young women in their communities. Studies have found that community role models are a key determining factor in enabling young women in communities across the world to challenge gender norms and gender roles. For example, role models have been proven to be vital in reducing child marriage rates in Vietnam (Jones et al., 2014), and providing inspiration for girls to stay in school and resist early marriage in Nepal (Ghimire, 2014). A project that provided female role models and mentors for adolescent girls from low socioeconomic backgrounds in Dhaka, Bangladesh found that this approach successfully provided inspiration as to how to go about "adopting non-traditional stances in relation to societal norms" (Sperandio, 2008; p. 219). Sperandio (2008: p.219) concluded that "the importance of female role models and mentors for adolescent girls seeking to break away from the stereotypical gendered lifestyles of their cultural environment is now acknowledged in both developed and developing countries". These findings correlate with some of the TEGAs' beliefs that they provided the young women in their communities with an example of how to 'break away' from gendered stereotypes and pursue a paid career outside of the home. In this way, too, it can be said that the TEGA project made a contribution towards closing the 'gender gap'.

Just as the TEGAs provided role models for other young women in their community of how girls can challenge restrictive gendered social norms, so, too, did their involvement in the project prompt some small changes in the broader perceptions of the community with regards to gender roles, and

greater awareness in the community regarding topics that affect girls. As one of the TEGAs in Rangpur, Bibi, remarked:

> People's mentalities have changed a bit. Like, I am a girl and being a girl I am going to another village and working.. Now they also think that their daughters would get an education, and after studying their daughters would also work in a project ... some parents say stuff like that. Many say that "my daughter has completed her masters but is not getting a job, and look in front of you ... a girl studying honors, inter, or has passed HSC is doing something and earning. Look, you also do something". In this way the parents are telling their children. Many changes like these have come about. The parents want that their girls complete their studies and do something. (Bibi)

One of the adult female respondents that I spoke to, Umma, also said:

> The project raised awareness of the risks of people getting married before 18, and girls getting pregnant before they are 18. (Umma)

Adolescent girls do not live in a vacuum. As Samuels et al. (2018: p.188) write, "[b]ecause their lives and trajectories are controlled by their parents and communities, broader efforts must be made to improve girls' skill sets and agency while also working to change the ways in which their gatekeepers see them". A review of studies of NGO programmes for adolescent girls in Bangladesh concludes that "too few studies speak to how to fruitfully include parents and in-laws and brothers and husbands, which is critical given that in order to expands girls' capabilities we must first enlarge the space into which they could grow" (Presler-Marshall and Stavropoulou, 2017: p.13). Whilst Girl Effect did not specifically design community interaction or awareness raising to be a key part of the TEGA project, seeing the TEGAs working and earning money led to other parents thinking that perhaps their daughters could also find paid work if they carried on studying. Lamia Karim (2014: p.159), during her ethnographic research with women engaged in microfinance projects in Bangladesh, found, similarly, that the women she spoke to viewed the "educated, female NGO field workers" that they came into contact with through the projects as "role models", and subsequently "would like to see their daughters attend school so they could get better jobs, particularly in NGOs".

Yet, as explored earlier in Section 5.3.5, whilst the TEGA project further enabled some of the TEGAs to enact their agency and challenge discriminatory gender norms and practices, this was not the case for all of the TEGAs due to the precarity and inconsistency of the TEGA work and the

more vulnerable positions that some of them occupied. It is likely that these factors therefore also affected, and limited, the extent to which the young women around them, and their family members, were convinced by the possibility that sustainable, consistent employment opportunities for young women could be on the horizon. During the first participatory action workshop one of the TEGAs, Jakia, shared that she was doubtful that there would be:

> No, the number of jobs around like TEGA in our locality are few … but still somehow the parents got the confidence that if their daughter can study maybe one day she can earn as well. (Jakia)

The contribution that the TEGA project made to providing role models and examples of the benefits of challenging discriminatory gender norms, roles and practices is therefore not clear. Whilst some of the TEGAs reported that they had inspired other young women around them to stay in school and seek out similar jobs, and that they had motivated others to support this, there was some doubt in the TEGAs minds that this would come to fruition due to the limited jobs available. The precarity of the TEGA project, and the intersection of vulnerability, may also have lessened the intensity of the 'role model' effect. The lack of tangible outcomes, such as providing sustainable employment, arising from the TEGA project is further explored below.

5.4.5 'How is it beneficial for us?' – Challenges to 'closing the gender gap' through data

Whilst the previous sections demonstrate that there were some positive responses from the TEGAs' communities to the project, their reaction cannot be said to be wholly so. Some of the TEGAs, including Anwara and Zakia, told me that some people in their local area had argued that as the project was just about collecting 'data' through 'surveys', and did not benefit girls and their communities in tangible, practical ways, it could not be considered 'good work' to be a TEGA:

> Many times the village people say that, "We get a lot of survey works, but what will they give? Why do they come, how is it beneficial to us? We will give you our time, but what will be gained? They are not giving us anything. Are they giving us money or food? Just every time we are getting survey works but we are not getting anything. (Anwara)

> They say to us, had this project financially supported girls to move them forward, then it would've made sense. What good will research do? It won't help girls improve their lives … they say it'd make sense if it actually helped girls, and that the work is only meant to collect data, not to develop girls. If it assisted girls, gave them financial support, then it'd be good

work. They tell us, ask for financial help first. Then you'll work. What is the point of gifts? We don't want them. (Zakia)

As the quotes above demonstrate, whilst some people in the TEGA's communities could see how the project benefitted the TEGAs themselves, and were hopeful that their daughters might also get an opportunity like this one day, others argued that the project had not helped other young women in the area, or the wider community, in a tangible way, and that they therefore felt it didn't 'make sense' and was not 'good'. There is a long legacy of majority world communities targeted by international development projects questioning the supposed 'benefits' that these projects bring, and whether they are equitably distributed (Oliver-Smith, 2010). The term 'over-researched' is also relevant here, as it was not just that the community members complaining about TEGA took issue with the lack of practical support given to the community as a result of their participation in the programme (i.e. 'food' and 'money') but also that they 'get a lot of survey works … 'but we are not getting anything'. Sukarieh and Tannock (2012: p. 496) note that "complaints of over-research have been regularly recorded all over the world" (Caudill, 1963; LeCompte and Goetz, 1982; Nnaemaka, 2005; Smith, 1999; Moore, 1996; Roberts et al., 1995; Sanghera and Thapar-Björkert, 2008), and that "complaints of over-research tend to arise from a combination of the sheer repetition, frequency and often redundancy of research presence, as well as a sense that research fails to bring any tangible or substantive change or benefit to the residents living in the communities being studied".

Digital data for development projects are not immune from grassroots critique either. Kennedy et al. (2020) found in their enumeration and community mapping exercise with a low-income community in the peri-urban fringe of Hyderabad, India, that several respondents had asked them directly whether they would receive tangible benefits as a result of being a part of this data project. They also concluded that the lack of tangible benefits, as well as the potential risks of having personal data gathered, had likely been a key factor in the refusal to participate for some residents. When tangible benefits were a clear outcome of data sharing, for example in order to receive water and electricity services, then the residents were happier to be open. Similarly, one of the community leaders contesting the data project in informal settlements in Lima, Peru that Albornoz et al. (2019: p.14) critically investigated stated that the data collection "representative explained that the survey would tell us the most urgent problems we have and we told him that [we already knew] that our most urgent problem was lack of access to clean water … it has been almost two years … and nothing has improved".

Some of the TEGAs told me that they themselves agreed with the concerns that people in their communities had raised about the lack of clear, practical benefits arising from the TEGA project. For example, Suya told me that:

> Most of the girls tell us about their problems but we are unable to provide them with a solution. Usually they are told that their problems are being recorded so that the generations to come don't face similar issues. If I am a victim now what will I do with assurances about the future generation … I want them to do something about it. If someone tells us about their problems, they (TEGA) should come up with a simple solution in one, two, or maximum seven days, since they're working for our village. (Suya)

As Suya's words show, there was also some frustration on the TEGAs' side that the project did not directly address the issues highlighted in the data collection process on a local level. As 'The TEGA Promise' that the TEGAs had to sign upon joining the project states (See page 10), the TEGAs had to "promise never to give advice". Yet even if the TEGAs were unable to give advice, as Suya suggests the project as a whole did not respond to the issues raised during the data collection either. I was told by Farah, one of the staff members based in the Dhaka Girl Effect office, that a 'sign-posting' sheet had been created which listed organisations working on specific issues, such as domestic violence, along with their contact details. This had been created as a "learning" following the Consortium Partner data collection project on sexual harassment, during which it became apparent that a large number of those taking part in the research were in need of further support. This sheet was supposed to be handed out to all the respondents who took part in the TEGA research from then on. However, when I asked the field officers and the respondents that I met whilst visiting the various TEGA networks about this sign-posting document, mostly I was met with a blank looks and shrugged shoulders. It was difficult to ascertain whether this document had reached the field officers or the respondents in the end, and whether it had been useful to those in need. Another member of the Dhaka-based project staff, Runa, told me that in her opinion this document had been made "too late on – it should have been given earlier".

Fast (2017: p.706) writes, "the increasing and widespread collection of data" in humanitarian and development programming "directly contrasts with the sense that data are often collected yet not used". Schoemaker et al. (2021: p.23), who researched digital identity in refugee camps, found that "many times … refugees were disappointed by organizations that collected data but failed to provide services, but … the refugees nevertheless continued to register with organizations out of desperation". Different organisations had different sets of assessment criteria through which to allocate scare resources, but as the refugees were not often aware of these criteria many were frustrated by having their information recorded without any concrete benefits arising from doing

so. Similar to the communities living in informal settlements involved in data gathering projects that Albornoz et al. (2019) spoke with, the participants involved in data for development projects know what the issues in their neighbourhoods are – whether it be food, shelter or water – but the path from data collection on these needs by external bodies to the meeting of these needs is not linear, nor is it guaranteed.

Some of the Girl Effect team also admitted to me that they found the lack of tangible impact arising from the programme challenging, as this excerpt from my reflective diary notes:

> Back in the office today … Farah told me that in a couple of weeks' time the CEO of Girl Effect and DFAT are presenting at the Women Deliver conference in Vancouver.
> Farah is under a lot of pressure to collect impact data for this presentation. She spoke to a woman at [one of the Consortium Partners], and apparently the woman sounded stressed about the idea of filling in the form. She didn't really have time to talk to Farah. (Research Diary 1; May 2019)

Later on in June, during a chat with Farah in the office, she shared more about how it had been difficult to get any direct impact information from the Consortium Partners in the end. Some had not come back with any impact information, whilst some had agreed to have phone calls which had given some information on how they might be using the data going forwards, but nothing concrete. Victoria, from the London Girl Effect office, also said that getting information from the Consortium Partners had been a "struggle" and that often the answers they gave were "vague and intangible", especially if didn't think through the research that well in the first place, meaning they've ended up with "findings they already knew", or that maybe are new but they don't know how to use them now. Farah told me that in her opinion this was evidence that the consortium partner model, in which the external funder DFAT pays for other NGOs to have research carried out for them in relation to their programmes, doesn't work because "they are not a paying customer". This point had been raised by other Girl Effect and iSocial staff too – the consortium partner model was argued to not have incentivised the consortium partners to think through how the research would be directly useful to their work, as it had been provided to them for free due to the funding by DFAT. However, as my interviews with the consortium partners found (see Chapter 4, Sections 4.5 and 4.7), the consortium partners were doubtful that they could use the TEGA data at all, due to concerns about the accuracy of the data, particularly about sensitive subjects, and also whether the data was too small-scale and qualitative to meet the consortium partners' requirement for the 'evidence' in evidence-based policy to be large-scale and quantitative.

These doubts from across the different participants in the project about the lack of clear tangible outcomes from the TEGA research in addressing gender inequality, and 'closing the gender gap', contrast strongly with the 'Informing girl-centred programming' section of the colourful booklet handed out to all the attendees at the final TEGA Bangladesh 'share-out event,' which was held at the smart Tulip hotel in Dhaka, not far from the iSocial office (Girl Effect, 2019). In this section, Girl Effect writes that "partners made changes to their curriculums and implementation strategies based on the feedback they heard, and told us that seeing and hearing the girls talking directly through videos helped them to understand their perspective in more depth" (ibid.). At the event, too, speeches were given by members of the Girl Effect team, the TEGAs and even the Australian High Commissioner of Bangladesh, all commenting positively on the beneficial outcomes of the project for girls in Bangladesh. The contrast between these statements, and the findings from my research, is stark.

In conclusion, therefore, this section has presented evidence that raises questions about Girl Effect's supposition that the TEGA project brought about not only 'meaningful change' in the lives of the TEGAs but also for girls in Bangladesh more widely. The TEGAs and respondents did say that there were some benefits accrued by those who took part in the TEGA research, such as having an outlet to discuss difficult topics, or receiving small gifts. Furthermore, some of the TEGAs felt that there had been some shift in how their communities' viewed girls, as seeing them working and earning money had encouraged others to consider how their daughters might also be able to find similar opportunities. However, the TEGAs and their communities were also frustrated by the lack of tangible benefits that had been brought to their neighbourhoods as a result of the TEGA programme. As Chapter 4 discussed, the consortium partners were also unsure how relevant the TEGA data would be to their NGO programmes, and as such the line from data to action is not overly clear in the case of the TEGA programme. Therefore, this section provides further evidence that challenges the claim that the TEGA project contributed to the closing of 'gender gaps' by bringing about greater gender equality in the lives of young women in Bangladesh.

5.5 Keeping the gender 'gap' closed

This chapter has so far discussed the ways in which the TEGA project can be argued to have 'closed the gender gap' through bringing about greater gender equality. The discussion has highlighted the fact that the TEGAs had, to some extent and with varied results across the cohort, seen a more tangible transformation of gendered roles and expectations in their own lives than was immediately visible in the lives of young women or the wider community around them. Yet the extent to which any of this progress that the project had made towards 'closing gender gaps' and bringing about

greater gender equality would be sustained following the end of the project, thus keeping the gap 'closed' in the future, is also worthy of critical consideration.

DFAT had committed to funding the TEGA Bangladesh project for two years. In other countries where TEGA also operates, the project has managed to continue beyond two years. This is in part due to the fact that Girl Effect has in-country offices in many of these contexts (Malawi, Ethiopia, India, Nigeria, Rwanda, Tanzania) and so the TEGAs in these settings can contribute to research for Girl Effect's own programmes. However, in Bangladesh (where there is no regional office) the future of the project was always less certain. One of the members of the London Girl Effect team, Victoria, told me that the future of the TEGA project in Bangladesh rested heavily on Girl Effect's broader priorities, and which countries they wanted to focus on going forward. Whilst she said that she wasn't privy to these meetings, she suggested that Bangladesh was "not a priority country".

During the latter part of my participant observation of TEGA Bangladesh (September – December 2019) the need to seek additional external funding in order to enable the TEGA programme to continue beyond the initial two years of funds weighed heavily on the Girl Effect Bangladesh team. They were not overly hopeful that further funds would be forthcoming. For example, Fahrid, a senior member of the Girl Effect's in-country partner organisation, iSocial, told me:

> We need to think about cost structure. Because if we want to make it mainstream, it should be competitive with other research institutions that offer similar kinds of research services. In terms of data collection perspective … in terms of how to scale it up we need to think about cost issues. (Fahrid)

As this quote demonstrates, Fahrid, alongside the rest of the Girl Effect Bangladesh team, felt that the TEGA project would be difficult to sustain in the 'mainstream', as it is more expensive than other data collection services available in Bangladesh. On top of the concerns that they had raised about TEGA as a data collection tool (see Chapter 4, Sections 4.5 and 4.7) this meant it was unlikely that many of the Consortium Partners would pay for further research beyond that which they received for free due to DFAT covering the costs. Furthermore, as was previously discussed in Chapter 4 (Section 4.7) when an external NGO put forward an expression of interest in contracting TEGA to carry out some data collection work this was rejected by the Girl Effect senior team on the grounds that it was 'large-scale' and 'quantitative', despite the fact that this is the type of data that many mainstream NGOs are interested in. One of the Consortium Partners did commission a further piece of work for later in the year in 2019. However, this was not enough to sustain the whole project going forward. Fahrid added that NGOs sometimes work with universities in

Bangladesh to carry out research, leveraging cheap student labour in exchange for 'work experience' in order to keep costs down. There are also agencies that can carry out wide-scale quantitative data collection through networks of enumerators. TEGA is far more expensive than these options. This is in no small part due to the fact that TEGA is a project initiated by a UK-based NGO. Girl Effect had to pay a tax to the Bangladeshi government to operate in Bangladesh as a non-Bangladeshi NGO. Furthermore, a significant chunk of the project budget was attributed to covering the staffing costs and overheads of the Girl Effect headquarters in London, which were higher than the equivalent costs for the Bangladeshi office and team. This is a common phenomenon in international development, and not unique to Girl Effect or TEGA.

I was later informed by Girl Effect that whilst the initial TEGA project in Bangladesh had officially ended in March 2020 (it had been extended by a few months due to members of the Bangladesh Girl Effect team resigning early, having applied to other jobs in advance of the project funding ending, leaving some extra funds to push the project out slightly further) an agreement had been made whereby the TEGAs were offered quantitative data collection work by iSocial as 'iSocial Researchers'. Also the Bangladesh TEGA network was not closed down formally, but instead an agreement was put in place whereby Girl Effect would still be able to work with the TEGAs in Bangladesh via iSocial. From Girl Effect's website I have been able to see that some of the TEGAs in Bangladesh were involved in a Girl Effect project called 'Hear Her Voice', which involved 29 TEGAs from 6 countries recording video diaries about their lives during the COVID-19 pandemic. The project website states that the "TEGAs were selected based on their enthusiasm to take part in the project" (Girl Effect, 2020). Most of the 47 TEGAs in Bangladesh are not involved in this initiative, however. As I have not been able to return to Bangladesh since 2019, I have been unable to assess how this new stage of the project is manifesting for the TEGAs. Yet the findings from this research about the precarity and uneven nature of the initial TEGA work, as well as other concerns, would suggest that the outcomes for the TEGAs of this new phase will likely be mixed. Some may no longer be involved in the project at all.

For the TEGAs, the end of the project weighed heavily on their minds. In particular, they were concerned about how they would cope without the income that being a TEGA provided. Many were using this money to continue their education, but this would have to come to an end once the programme finished. With their education and employment status uncertain, some of the TEGAs said that their families were suggesting marriage as a next step. Whilst some of the TEGAs welcomed this, others such as Telova did not:

No, no, I want to work more. I want this to last for three or four years. As long as the project lasts, we want to stay with it. But when the field officers anticipate its duration, we get scared. I become doubtful of my future and job … Already they are asking me to marry. I used to scold my mother that, if she tells me to marry before I turn 18 then I will turn you in the police station. But tomorrow is my birthday and I am going to be 18 … *(Telova)*

Certainly, the TEGAs were concerned that all the progress that had been made in their individual lives during their participation in the TEGA project was at risk of backsliding. Empowerment, in its anticolonial feminist form, which is at odds with the liberal, individualistic and technocratic form purported in mainstream development (Batliwala, 1993), is about majority world women working 'with' one another to develop their consciousnesses and belief 'within', and then using this individual strength collectively 'to' transform structural power relations through action that challenges the status quo (Kabeer, 2001; Rowlands, 1997). The TEGA project in Bangladesh, however, lacked this actively political dimension. Going forward, the TEGAs told me that they hoped to stay in touch with one another. However, as they were spread out in many different 'bastis', or villages, their chances to meet up were limited by ability to access and pay for transport. Once the project ended they would no longer have credit uploaded onto their phones, so their ability to use WhatsApp – which was their main way of communicating – was also at risk. The TEGA project had also not been designed to foster grassroots organising, by bringing the TEGAs and their peers together to challenge power relations and connect with local leaders and policy makers.

Looking to the future, it is not clear how the TEGAs will be able to take forward the things that they have learnt whilst part of the project to continue to ensure that the 'gender gaps' affecting their lives, and the lives of the young women around them, remain closed. Whilst the TEGAs felt the project had brought about greater gender equality and opportunity in their own lives, they were worried about how they would be able to sustain this once the project ended. Furthermore, whilst the project had brought about small changes in the perceptions of the young female respondents and the wider community about what girls can, and should do, this was strongly tied to the TEGAs' ability to earn an income and contribute to the family, something that is now in jeopardy following the formal end of the programme. Sustainability was not a key consideration in the TEGA project. It was described by the headquarters as a 'springboard' for the young women involved, but without ensuring that there was a 'pool' of opportunity for them to 'spring' into. Whilst the TEGAs agreed that the project had helped them to see the world differently, and the way that their worlds saw them, they did not feel confident that they would be able to keep themselves out of poverty. The TEGA project did not facilitate collective information sharing and organising amongst the TEGAs or their peers, nor did it connect them to those in positions of power, whether that be local leaders

or employers. As such, the structural power relations in the lives of the TEGAs' and the young women around them remain relatively untouched. This leaves any closure of 'gender gaps' that TEGA brought about at risk of re-opening now that the programme has ended, with little sustainable change made to gender inequality.

5.6 Conclusion: 'A Powerful Girl Empowerment Intervention'?

> Pure research will never change anything ... it's not benefitting anyone … What is my benefit - what is this research leading to?" These are important questions to be asking. Girl Effect is not in the position to answer that right now. (Farah)

The findings explored in this chapter challenge the extent to which the TEGA project in Bangladesh can be concluded to have 'closed the gender gap' through 'closing the gender data gap'. Whilst there is no singular definition of the gender gap, over all this chapter identified that the phrase can be understood as referring to the gap in equality that still exists between men and women in every country in the world. In the case of Bangladesh, for example, the 'gender gap' between men and women is observable in the high maternal mortality and teenage pregnancy rates, and the relatively low female secondary education, labour force participation and political participation rates. In the 'gender data gap' literature the manifestations of gendered inequality deemed resolvable with the right amount of high-quality data at hand range from the 'gender gap' in educational access, agricultural productivity or care-work burdens. In the case of the TEGA project in Bangladesh, the 'gender gaps' selected as requiring data collection and analysis by the project staff and consortium partners ranged from girls' economic opportunities, sexual and reproductive health needs, nutritional needs, experiences of sexual harassment and experiences of saving and digital financial services. The TEGAs themselves mentioned other 'gender gaps' they felt were worthy of attention, such as health provision, dowry and child marriage expectations, and educational access. However, the project was not only positioned as helping to overcome these 'gender gaps' through gathering information to inform and evaluate better development initiatives, but also as being a "powerful girl empowerment intervention" for the TEGA's themselves through providing them with new 'skills', 'economic opportunity' and the change to 'increase' their 'value, voice, [and] visibility'.

Yet the findings that I gathered through spending six months engaging in participant observation, interviews and participatory workshops with the TEGAs, their communities, and the project staff complicate, however, the claim that the project closed 'gender gaps'. On the one hand, the TEGAs, their communities and the project staff felt that the project had 'empowered' the TEGAs and 'closed gender gaps' in some important ways. For example, it provided the TEGAs with the opportunity

earn an income, to have greater mobility outside their households, and to contribute to household expenses – activities that are largely male dominated in Bangladesh today. The TEGAs felt that they received greater respect and recognition in their families and communities as a result of their work. Many said that they felt more confident as a result of their involvement in the programme, and some said they had been able to challenge patriarchal norms and gender discriminatory practices, such as early marriage, in their own households and communities. Many of the TEGAs had also been able to continue their education beyond the level that young women from their socioeconomic backgrounds are usually able to. Furthermore, being engaged in the TEGA programme provided previously unavailable informal learning opportunities, particularly in relation to learning about how to use smartphones. Smartphone usage is still unequal in Bangladesh, with men able to use these devices and other digital technologies more freely than women. All of these findings provide strong evidence that being a part of the TEGA project did enable the TEGAs to overcome some gendered barriers and therefore 'close gender gaps'. They also told me that, aside from instrumental 'gender and development' goals, there had been plenty of other benefits to their participation as well, including making new friends, having fun and having new experiences.

However, alongside this evidence supporting the argument that TEGA helped to 'close gender gaps' through closing 'gender data gaps', some of the findings that the TEGAs shared with me told a different story. For example, all of the TEGAs told me that they found the TEGA project work too precarious. They would be set a data collection task, earn money, and then sometimes several months would pass by without any more work. They told me that this did not match up with what they had been told to expect from the project. The Consortium Partners did not always want to gather data from all four of the networks – sometimes they only wanted data from one or two of the geographic areas of Bangladesh, in line with their programmatic requirements. Yet this left the TEGAs in a difficult position, whereby they worried month to month about whether they would earn anything. It also meant that all of the above benefits and examples of how the project closed 'gender gaps', such as enabling the young women to stay in education, were also precarious, as they were largely predicated on the TEGA's involvement in high-status, well-paid work.

Additionally, as intersectionality theorists have demonstrated for decades, the 'gender gap' is not the only identity-based 'gap' in equality that exists between people – indeed, 'gender inequality' intersects with race, class, (dis)ability and numerous other identity-based 'gaps'. The TEGAs were not only young women – they also belonged to different religious and socioeconomic groups, some having more or less social privilege than others as a result. This meant that the beneficial outcomes of being involved in the TEGA project were more pronounced for some of the young women than others. Furthermore, the precarity of the project was also experienced more deeply by the more

disadvantaged TEGAs. As such, it cannot be said that the 'gender gap' was closed to an equal extent amongst the TEGAs.

The TEGA project was not only positioned as an 'empowerment' project benefiting the TEGAs, however – Girl Effect (2019: p.2) also saw the initiative as bringing about 'meaningful change' to the lives of girls more generally through generating "deeper insights" from which "effective and targeted initiatives that are having real impact in the lives of girls and their communities" could be forged. The respondents interviewed by the TEGAs said that they had enjoyed forming new friendships through the research process and had learnt new things through discussing the various TEGA research topics. The TEGAs added that the respondents had appreciated the small gifts that they had been given, and that seeing them working outside of the household had inspired the young women around them to fight to stay in school so that they too could get formal employment in the future. Additionally, the TEGAs said that there had been some small shifts in attitudes about girls working, or girls using mobile phones, in the wider community around them. As some of the projects had involved speaking with parents, or other community members, there had also been an increase in knowledge about certain topics, such as adolescent pregnancy, across the community.

However, despite these positive outcomes, the extent to which the project can be said to be 'having a real impact in the lives of girls and their communities' is debatable. As Chapter 4 and this chapter demonstrated, there is little evidence that the findings from the TEGA research was being drawn upon to formulate real-world programmes assisting the young women whose data was collected in tangible ways. The TEGAs said that both they and those living around them were concerned about this lack of practical outcomes, asking 'we will give you our time, but what will be gained?'. They felt that the benefits to the community were small in comparison to those that they as TEGAs had experienced. However, in their case, and with regards to the small changes brought about for their families and communities, the 'impact' of the programme was from the outset likely to be short-lived. This is partly due to the fact that the project lasted only two years. Whilst it would seem that the TEGAs have been given some possible further data collection opportunities with iSocial and Girl Effect, little information is available about whether this work is regular, secure, sufficiently paid or adequately supported. Outside of providing paid work, TEGA did little to facilitate collective information sharing and organising amongst the TEGAs or their peers, nor did it connect them to those in positions of power, whether that be local leaders or employers. As such, the structural power relations in the lives of the TEGAs and the young women around them remain relatively untouched. Based on these findings, the extent to which the TEGA project in Bangladesh can be argued to have 'closed gender gaps' and brought about empowerment for the TEGAs and young women more broadly is limited.

Chapter 6: Enacting anticolonial feminist data for development

6.1 Introduction

As the findings explored in Chapters 4 and 5 have already demonstrated, whilst the TEGA project in Bangladesh did go some way towards 'closing the gender data gap' and 'closing the gender gap', it cannot be said that the programme fully realised its ambition of bringing about gender equality for girls in Bangladesh through the collection, analysis and deployment of 'data'. These Chapters also situated these findings about the limitations of the project in the relevant literature that was reviewed in Chapter 2, finding them to be strongly resonant with anticolonial feminist critique of (data for) development. However, as the literature review in Chapter 2 made clear, anticolonial feminism is not just theoretical, but is instead a form of praxis which is committed to bringing about an anticolonial feminist world in tandem with understanding what that might look like (Ruíz, 2021). This chapter explores the extent to which it is possible to enact anticolonial feminist data for development, drawing on this literature and the empirical example of the participatory workshops and community events that some of the TEGAs and I collaborated on together.

Participatory approaches in development are far from new – indeed, over two decades ago Mayoux (1995: p.235) described them as "the established orthodoxy among development agencies". Furthermore, as discussed in Chapter 3 regarding the methodology employed for this thesis, participatory approaches have received a significant amount of critique (Cooke and Kothari, 2001; Frideres, 1992; Kapoor, 2005). Yet despite these concerns, participatory approaches continue to be utilised by those engaging in research from an anticolonial feminist perspective (Távara, 2019). Participation is not a set of specific methods, but instead a "bottom-up" orientation to research that is "primarily differentiated from conventional research in the alignment of power within the research process" (Cornwall and Jewkes, 1995: p.1668). PAR, or Participatory Action Research, "involves researchers and participants working together to examine a problematic situation or action to change it for the better" (Kindon et al., 2007: p.1). Pain et al. (2007: p.26-27) argue that just as the "feminist principles of equality, reciprocity, partiality and valuing the voices of ordinary people as expert and authoritative on their own lives are reflected in PAR", so too has the "postcolonial practice of PAR … reworked positive and empowering alternatives" to the continued colonisation of knowledge.

In this vein, from September to November 2019 I worked in collaboration with 10 of the TEGAs to address one of the concerns that the young women had raised regarding the project; the fact that the gender data they gathered on behalf of various NGOs was not shared with them or their communities. However, through working together to try to address this and 'close the loop' of their

gender data, it also emerged that the young women felt there were other topics that they would prefer to share information on with their communities rather than those that they had been assigned to collect by the TEGA project. This chapter discusses these other topics that the TEGAs wanted to focus on further, the main one being child marriage, and locates these findings in the literature. In particular, it is noted that the fact that the TEGAs involved in the workshops identified other topics as being more important to them and their peers than those chosen by Girl Effect and the consortium partners echoes longstanding critical work by anticolonial feminists regarding the misrepresentation of majority world women by Western researchers (Abu-Lughod, 2008; Castañeda, 1992; Mohanty, 1984), as well as newer critique from critical data scholars regarding the strengthening of patriarchal coloniality through data (Benyera, 2021; Heidari and Doyle, 2020; Iyer et al., 2021).

In their book 'Data Feminism', Lauren Klein and Catherine D'Ignazio (2020: p.26) state that the only way to uncover the power that data discursively and tangibly produces, and is produced by, is through asking 'who' questions – who is doing the data work? Whose goals are prioritised? And who is benefiting from it? Engaging in this participatory gender data process with the TEGAs brought two key critical 'who' questions to the fore: 1) Who is gender data for? and 2) Who is gender data by?. If gender data for development projects are not by majority world women, for majority world women, but are instead by international NGOs for international NGOs, then this perpetuates the colonial power relationships that anticolonial feminists have criticised international development for furthering (Calvès, 2009; Shain, 2013). Working collaboratively with 10 of the TEGAs to address their concerns with the project led to us developing and disseminating three community events on child marriage. In enabling the TEGAs to deliver data 'by' themselves, 'for' themselves and their communities, this research provides empirical evidence that strengthens the argument that participatory approaches can go some way towards responding to anticolonial feminist concerns about (data for) development.

However, as this chapter will also argue, participatory development practices go some way towards enacting anticolonial feminist data in practice, but cannot alone dismantle the structural global power relations which continue to oppress majority world women and create the conditions for 'development' in the first place. Anticolonial and feminist critics of development have argued that development is shaped by, and perpetuates, neocolonial and patriarchal power relations (Hickel, 2021; Wilson, 2017). Reflecting on the limited capacity of the participatory process that the TEGAs and I underwent together to fully level power hierarchies and ensure equitable research outcomes for all brings this overarching structural constraint to the fore. Participation when it is part of a top-down, Western-led, short-term development intervention will never achieve radical transformative

anticolonial and feminist praxis, due to the fact that mainstream international development and anticolonial feminism are antithetical to one another. However, this chapter concludes that there is hope going forward for anticolonial feminist data in the majority world to come to fruition, through engaging in data as part of radical alternatives to mainstream development.

6.2 Anticolonial Feminist Data for Development – An Oxymoron?

> With every new technological innovation come new promises, new euphoria, and a regurgitation of past hopes and aspirations. Big data is no different. Technology becomes ahistorical—again.

(Arora, 2016: p.1690)

Chapters 4 and 5 laid out the ways in which the TEGA project, in some ways, furthered power relations and gaps in equality whilst simultaneously attempting to challenge them. This chapter documents an attempt that some of the TEGAs and I made to address this, and enact anticolonial feminist data for development, through working in participation together. However, before discussing this participatory process, and its outcomes, it is first necessary to consider the limitations to the concept of anticolonial feminist data for development as a whole, drawing from the findings shared so far on the TEGA programme.

The over all conclusion that can be drawn from the findings in Chapter 4 and 5 is that, whilst some positive outcomes arose from the TEGA project, there is little evidence that the programme brought about lasting gender equality for girls in Bangladesh through gender data. Indeed, as has already been argued, from an anticolonial feminist perspective the TEGA project can be said to have done more to benefit the development organisations involved, and those working for them, than it can the supposed 'beneficiaries' – i.e. the TEGAs and girls in Bangladesh more widely. There was limited evidence that the data gathered as part of the TEGA project had led to concrete benefits for the young women involved in the consortium partners' programmes. The TEGAs did earn some money, gain confidence and experience a number of other positive outcomes from their involvement in the project, but they also had to contend with precarious work schedules, and a short-term programme that did little to alter the structural conditions of their lives in a sustainable way that would enable them to pursue their aspirations once it had ended. Meanwhile, the staff employed at the iSocial office in Dhaka or at Girl Effect in London had stable, comparatively well-paid jobs as a result of their involvement in the project, and few qualms about their ability to find alternative employment in the future. The Consortium Partners received free data, and the Australian government funding the project got to demonstrate their commitment to the Sustainable Development Goals. This imbalance in tangible outcomes from the project was shared Shamim,

one of the members of project staff based in Dhaka, who felt frustrated by the gap between their good intentions and the actual change that they could bring about:

> I know I draw so much more money than the TEGAs do ... and I feel very bad about it. That's why I cannot work in this sector anymore … It feels like the whole system is sucking up the money, and very little goes to the intended. I feel so bad about it … With the cost of a flight from London to Dhaka - we could fund 30 community engagement events. (Shamim)

As Shamim's words show, he felt disillusioned with the inability to make real radical change through the TEGA project come to fruition, and the ways in which it retrenched patterns of privilege through benefitting development 'professionals' to a greater extent than those the project is supposed to be benefitting. This concern was shared with me by other members of the project staff in Dhaka too. They deeply cared about the young women involved in the programme. Many of them went out of their way to try to assist the TEGAs beyond the official scope of the project – for example, by giving those struggling financially extra money on the side, or by taking phone calls from them at any time, day or night if they needed advice. Yet this issue of the perpetuation of inequalities through mainstream development extends beyond individual actors – it is structural and deeply embedded. Shamim's frustrations with 'the whole system' resonate with some of the anticolonial and feminist critiques of development, which have argued that 'development' is unavoidably shaped by, and shapes, neocolonial and patriarchal power relations. As Sultana (2019: p.32) summarises:

> Scholars have called development a creative adjustment of coloniality, whereby the colonialist logics and imperatives still remain socially, politically, economically, and ecologically. Extractions of resources, restructuring of nation-states and economies, consolidations of power in the hands of a few global elites, and the practices of surveillance, conformities, and alienations continue. Such processes happen despite feel-good discourses such as the … Sustainable Development Goals (SDGs).

The TEGA project is not just a development project, however, but also a 'gender data' for development project. As the literature review in Chapter 2 explicated in detail, ICT4D projects, including those using data, have been specifically critiqued for the way that they "reinforce existing structures of inequality and power imbalances" (Schelenz and Pawelec, 2021: p.8) between the Global North and South (Alzouma, 2005), as well as along gender, ethnic and racial lines (Servaes & Hoyng, 2016; Wakunuma, 2013). Data and ICT led development invokes neoliberal ideals and

logics of expanding markets and 'smart economics', as well as tropes of modernisation, eurocentricism and technocentricism, deepening the power structures that are responsible for the inequality and poverty that development supposedly seeks to fix in the first place (Pieterse, 2010). In recent years, Girl Effect and other gender and development organisations have also endorsed "the 'turn to the girl' and mobilization of 'girl power'" (Koffman et al., 2015) with, according to anticolonial feminist critics, "disempowering effects" (Switzer et al., 2016). The discourse of the 'Girl Effect' – the idea that 'vulnerable' girls in the Third World once 'mobilised' and liberated from patriarchy by Western-led development will single-handedly "transform the economic fortunes of the world" with their "entrepreneurial spirits" (Koffman and Gill, 2013: p.90) – has been critiqued as a "selective uptake of feminism" that "renders invisible the inequalities, uneven power relations and structural features of neo-liberal capitalism" that produce the very global injustices that the Girl Effect purports to challenge (ibid.: p.86). On the basis of this prior critical literature, it is not without precedent therefore that this thesis found the TEGA project, which is both a data for development project and built upon the logic of the 'Girl Effect', to also be a perpetuator of neocolonial and patriarchal power relations.

These anticolonial and feminist critiques of the limitations of Western-led international development organisations to bring about radical change through 'data' and 'girl power' alone, has fuelled the envisioning of alternative possibilities beyond development. For example, Mohanty (2002: p.509) has called for an "anticapitalist transnational feminist practice" that concentrates on the "critique of global capitalism (on anti-globalization)". Others have argued in favour of "pluriversal political and economic practices and lessons from Latin American indigenous women and decolonial feminist movements" such as "Buen Vivir" (Harcourt, 2014: p.1307). Elsewhere, Dengler and Seebacher (2019: p.251) have put forward a "feminist decolonial degrowth approach" that builds bridges with "existing Southern concepts … transformative movements … and lines of thoughts" as well as negating the potentially short-term negative consequences of degrowth in the global north on the global south. Whilst mainstream, Western led development "moved from focusing on the conditions that produce poverty, to focusing on alleviating poverty by tackling symptoms" (Kvangraven, 2019: n.p.), these anticolonial feminist alternatives seek to address unequal relations of power first and foremost.

Whilst these alternatives are heterogenous and vary widely in their aims and emphasis, what unites them all is that they are led by, and in collaboration with, people in the majority world. In this sense they can be argued to be 'participatory', as they build from the grassroots upwards and are collective, rather than being imposed from the outside by external elite 'experts'. Academic uses of 'participation', in the form of participatory research and participatory action research, arose from

participatory social movements such as these (Pant, 2014). For example, Paolo Freire (1970), the Brazilian educationalist, recognised in his work with adult literacy campaigns that mutual learning develops grassroots knowledge that drives effective action, a process he termed 'conscientization'. Yet the increasing usage of 'participatory approaches' outside of social movements, in international development and academic contexts such as this thesis, has led participation to be critiqued as a "new orthodoxy" that is leveraged by the powerful to obscure their 'business as usual' stance (Osikhena and Chikadzi, 2014: p.521-523). However, as Williams (2004) points out, it is not participatory approaches per se that are the issue, but the fact that they are often utilised in depoliticised contexts, such as mainstream international development projects, and that is why they often do more to maintain the status quo than to transform political and economic structures in pursuit of justice. Instead, participation in these contexts remains 'tokenistic'. He further argues, when 'participation' is politically engaged – i.e. is part of initiatives that are developing the political capabilities of grassroots communities so that they can directly and successfully target the structures of power - then they can, and do, bring about real change (ibid.).

As outlined in Chapter 2, this thesis takes an anticolonial feminist theoretical approach to exploring gender data for development, and as Chapter 3 made clear this means also 'doing' as well as 'thinking' like an anticolonial feminist. Anticolonial feminism is a form of praxis, as it is informed by both postcolonial theories about the perpetuation of colonial power through discourse and representation as well as by decolonial efforts to actively imagine and bring about anticolonial feminist worlds (Ruíz, 2021). Participatory Action Research approaches have been therefore considered to be appropriate for anticolonial feminist scholars, as they put the participants, in this case young women in the majority world, at the centre of the research, and involve working collaboratively from this grassroots position to generate knowledge and to act upon it (Askins, 2018; Barker and Pickerill, 2020). It was on this basis, then, that 10 of the TEGAs and I came together to build on some of the concerns that they had raised about the TEGA project during their interviews and to generate actions to address them. This section has outlined the rationale for engaging in this process with the TEGAs, on the basis of the anticolonial feminist and PAR literature, as well as the empirical findings which demonstrated how the TEGA project maintained power hierarchies through being led by development organisations rather than by the TEGAs and young women in Bangladesh more widely. The next three sections (6.2, 6.3 and 6.4) present the findings from the participatory process. However, as this section has made clear, there are limitations to what participation can achieve when it is enacted within a 'depoliticised context', such as a mainstream international development project. Therefore, Section 6.5 reflects on the ways in which enacting anticolonial feminism through this participatory research was necessarily constrained. Section 6.6 finishes this chapter by suggesting a

way forward for enacting anticolonial feminist gender data in the future, as part of anticolonial feminist alternatives to development.

6.3 Gender data for whom?

Engaging in participant observation and interviews with the 47 TEGAs in Bangladesh, during the first three months of my time in Bangladesh, brought to light both aspects of the project that they deemed positive as well as areas of concern. One of the concerns that many of the TEGAs raised (and which has not yet been discussed as the others have in Chapters 4 and 5) is that the data that they gathered on behalf of the Consortium Partner NGOs and Girl Effect was not fed back to them or the wider community:

> Me: Do you know about the results of the [project] research?
> Lamia: No, all the information goes straight to the office.
> Me: Do you want to know?
> Lamia: It would be good, because I would know how well I had done through them … how much all of the things are improving.

As this interview excerpt with Lamia demonstrates, the TEGAs wanted to know the results of the research that they collected data for. In part they wanted to see the data so that they could 'know how well' they had done and therefore assess their own performance as a digital data collector. However, they also wanted to know the findings so that they could see 'how much all of the things are improving' – i.e. so that they too could understand what topics people in their community felt positively about, as well as issues that needed attention. As one of the other TEGAs, Telova, told me:

> Sister, we cannot get the right idea about the problem without research. Suppose there is shortage of drinking water in the community but after research we can know that the main problem is food scarcity - so research is best. (Telova)

Whilst Lamia, Telova and many of the other TEGAs had said that they were interested in having the findings of the data that they had gathered returned to them, it became apparent in the interviews that they did not only want this data to be shared with themselves alone. Many of the TEGAs had also said whilst being interviewed that they felt that it was important for the wider community to have access to the information gathered during the data collection too, so that they too could have their 'awareness raised'. As discussed in Chapter 5, section 5.4, one of the main positive outcomes

of the TEGA project that some of the TEGAs, and a few of the respondents, had raised was that those who had had data collected from them had also gained useful information whilst being interviewed:

> We talk to them (the respondents) regarding the things we were trained on. We explain the topic to them. For instance, there were two topics called Food and Nutrition 1 and Food and Nutrition 2. So, girls in our locality didn't know much about food and nutrition. When we were made to research on it, we spoke to the girls about these things, and so they got to know these things from us. And then we found out information about them that we hadn't known. Added together, the whole of it was great. When we sent the recordings to our seniors, they understood the whole picture. (Fahima)

As Fahima's words demonstrate, the research participants could learn from being interviewed through having the topic explained to them in order for them to answer the questions that they were asked. However, as the TEGAs only gathered data from a select few from their local community, and mostly young women like themselves, some, such as Razia, told me that they also wanted information relating to the TEGA research topics to be shared more widely with those living in their local area:

> If only I am being interviewed then it has helped people but it hasn't really helped the community people or people around. Because even my own family members - they don't know what I am talking about or have interest in it. So how would people outside? … if the project is extended then I would prefer that they go for seminars as one-to-one interviews don't really help to spread awareness. (Razia)

This call from the TEGAs to have the data that they had gathered on behalf of NGOs about girls and gender equality issues returned back to them and their communities, rather than remaining solely in the hands of these external organisations for their own uses, is in line with long-running methodological discussions about research ethics. For example, in her article which seeks to review, and problematise, the limited empirical work available on the experiences of participants in qualitative research, Kathleen Dennis (2014: p.399) references Watanabe et al.'s (2011) study which found that "participants' praxis needs were not met when the loop of information or knowledge was not closed", and that this is an ethical concern. It also echoes anticolonial feminist critiques of the perpetuation of colonial and patriarchal power asymmetries through research (Medie and Kang, 2018). For example, drawing on the Beninese philosopher Paulin Hountondji (1997) Roberts and Connell (2016: p.135-136) write that:

> … in the mainstream global economy of knowledge … theory is normally produced in the metropole and exported to the periphery, while the periphery normally produces data and exports this raw material to the metropole.

But as Narayanaswamy (2016: p.4) asks in her critique of extractive 'knowledge for development' practices, if knowledge is power then "why should only the Northern technical expert hold knowledge?". Lastly, this call to 'close the loop' and share data equitably with the communities from which it is taken also echoes critical data studies work. For example, anti-colonial data theorists have called for indigenous data sovereignty, defined as "the right of Indigenous Peoples to own, control, access and possess data that derive from them" (Kukutai et al., 2020: p.654), as well as the need to recognise "the agentic capacities of communities in the Global South as creators, users, and owners of knowledge" (Dutta et al., 2021: p.823).

It is clear therefore that the TEGAs' wish to have the data they collected from their communities returned to them and those around them is shared by many others. I therefore wondered if it was something that Girl Effect had considered during the project design or implementation. During one of the research meetings held via Anushree's laptop with Lauren from the London office with Anushree and Tahmima from the Dhaka office, I asked Lauren whether it had ever been considered that the TEGAs might be involved in the gender data research process beyond the data collection, for example in the data analysis or the sharing of the findings? I was told by Lauren that this was something to consider going forward, but that they did not feel the TEGAs had had the training to enable them to be able to fully comprehend or analyse the data:

> It's a good idea, something to explore. The TEGAs are on a journey for two years, now they are at the bronze level – gold level is more where the analysis comes in. There's a lot of other skills gaps like probing that we need to address first. (Lauren, Girl Effect)

This notion that the TEGAs needed further training was something that the TEGAs themselves had raised during their interviews (see Section 4.3 of Chapter 4). However, at the time of this meeting the project end-date was only months away which did not leave long, or many data projects, left for the TEGAs to be trained for. It therefore seemed unlikely that the involvement of the TEGAs within the data life-cycle beyond collection would come to fruition. At a later meeting with some of the Girl Effect London team, once I had come back from Bangladesh, the reason I was given for this lack of training and involvement of the TEGAs in the data analysis and findings dissemination earlier on in the two-year project duration was the same as the reason I was given by another member

of the London Girl Effect team, Anna, for why the findings of the data had not been shared with the communities from which it was taken:

> Time and budget would be our biggest concern … (Anna)

Temporal and financial constraints were consistently cited as the main reasons why the TEGAs and their communities did not get to have access to the TEGA data once it had been collected and transmitted to the Girl Effect 'Data Hub' via the TEGA app. The Bangladesh TEGA project was funded by a $1,440,000.00 grant from DFAT, stipulated to last two years. Whilst I did not have access to the project finance plans, I was told by members of the Dhaka office that a significant amount of it was spent on overhead costs of the London and Dhaka offices, as well as staff members' salaries. Whilst discussing how time and financial constraints restricted the ability to of the TEGA project to 'close the loop' of its gender data at Tahmima's house over shondesh sweets and tea one weekend, she said that perhaps these could have been alleviated had this goal been built into the project design from the beginning:

> That would have been easier, because by the time it came round to thinking about it we already had so many other responsibilities that there wasn't time. (Tahmima)

The project staff, both in Dhaka and in London, told me that they were under constant pressure to meet the project delivery deadlines, and to keep within the project budgeting requirements. Indeed, Victoria, one of the London Girl Effect team, remarked that:

> I am just so busy trying to get the research out of the door, I don't have time necessarily to reflect on the programme … I just need to get the research done. (Victoria)

This observation that the instrumental, managerial project delivery of the TEGA project overshadowed and impeded reflection on the programme as a whole has also been observed by a number of anthropologists "opening up the black box" of other international development programmes (Mosse, 2013: p.232). As Mosse (2013: p.233) notes, drawing on Mintzberg (1979), "bureaucratic systems (NGO or state) tend to prioritize their own internal "system goals" (of maintenance and survival) over meeting official policy goals". Rottenburg (2009: p.68) argues that this disjuncture is due to the fact that development institutions are compelled to "[to] serve first and foremost the legitimation narrative assigned to them by their [political] environment". In the case of TEGA, the "rational planning frameworks within the micro-world of the project" can be understood as reflective of "the wider framework of contemporary international development"

(Mosse, 2004: p.642). Whilst all mainstream development projects face technical challenges, it is also clear that neoliberal corporate language and logics, reflected in the oft-used phrases 'cost-effective' or 'frugal innovation', has increasingly crept into mainstream development discourse (Adhikari et al., 2018; Pansera and Owen, 2018). The TEGA project is exemplary of this - in an interview with Devex, the Founder and previous Director of TEGA Laura Scanlon said that:

> Our ambition was to design a solution that gave fast access to authentic understanding into the lives of girls.

Elsewhere, the TEGA project is similarly described as being able to give "rapid insight" (Girl Effect, 2017). On the website of Maido (n.d.), the design agency hired to design and build the TEGA smartphone-based research application, the case-study of the TEGA project reads "conventional research is slow and flawed". Furthermore, in an internal assessment of TEGA across all of its different locations, which entailed speaking to the in-country teams and people in the Girl Effect office involved in the TEGA research (although not the TEGAs or the respondents), it was found that:

> The main strengths mentioned were that it is cheap and fast. (Lauren, Girl Effect)

These project goals of being a 'fast', 'cheap', 'rapid', 'solution' sound similar to those employed by 'agile' and 'lean' tech start-ups. Taylor and Broeders (2015: p.234) have observed that Girl Effect is not the only data for development organisation to "use the language of the private sector to frame human and economic development aims", with the Global Pulse analytics lab or the Peace Innovation Lab at Stanford also employing phrases such as 'rapid insight' or 'fast access'. Yet as Madianou (2019: p.7) argues, in being oriented around these operational goals, "datafication increasingly serves the logic of efficiency and audit rather than the imperative of humanitarian reform and participation". It may seem that having the ability to get information on girls lives more quickly via a smartphone app makes logical sense – in theory this enables quicker analysis and action, as well as saving (in the case of TEGA at least) public money and people's time. However, Virginia Eubanks (2018) in her book 'Automating Inequality' elucidates the way in which this 'scarcity bias', which is used to justify using technology to fill the gaps left supposedly by a lack of time, money or people in order to introduce data and algorithmic tools within the public sector, usually serve the creators of these technologies rather than those who are targeted by the tech solutions. In the case of the TEGA project, it may have saved international development organisations and their donors time and therefore also money, but to what extent did these logics of efficiency and techno-solutionism serve the interests of the TEGAs, those they interviewed or their communities?

This question of 'who is gender data for?' became palpable for me whilst attending a TEGA 'community engagement' event in Dhaka. It had been planned and budgeted that there would be two community engagement events in each of the TEGA's communities, the first at the beginning of the project and the second at the end.11 The initial community engagement events were intended to inform the TEGA's communities about the project so that they would be more willing to take part, as Tahmima, one of the project team in Dhaka told me:

> There are more traditional restrictions … it can be hard to make a project, this is what a girl faces in Bangladesh. Some people like them being TEGAs and see that they are doing good things and interviewing girls, but some people don't agree. That's why the community engagement is so important – they see not the impact, but, what's the word, they see that it's a different work, that the security of girls is ensured and highly prioritised. (Tahmima)

The latter community engagement events were, however, designed to inform the TEGA's families and their communities about the impact that the project had had. One Saturday I joined some of the Dhaka TEGA team, including staff from both Girl Effect and iSocial, at one of these later community engagements. On the day of the event itself I took a taxi to the neighbourhood where it would be taking place, which was an hour and a half's drive out from the centre of Dhaka. The streets in the area were too narrow for the taxi, and so I got out and walked down various passageways until I reached the small hall that had been booked for the engagement, which was part of a community school. Three of the TEGAs were there – Nasrin, Parbina and Jaya. The venue filled up quickly with people from the local area, including some of their family and friends. Farah, one of the staff members in attendance, said "they come because they get a gift" – lunch in take-away boxes with bottles of sprite or coke were given to all the attendees after the presentation had taken place. The presentation slides were projected onto one of the walls. Farah went through the aims of the TEGA programme first, before detailing the different research projects that had been carried out. Then there were a number of slides about the TEGAs and their experience. Nasrin gave a short speech in which she said that she feels "more courageous" after being involved in the project. Her mother, who was also there, said that she agreed with this. After the presentation the audience clapped, and Farah then invited them to speak or ask questions. Only one man stood up and spoke – he said that "research is important and goes straight to the top … there are many NGOs in

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11 In practice, however, the community engagement events had not taken place at the beginning of the project in all four of the networks – some of the first community engagement events took place in April 2019. They also had not taken place in all of the TEGAs villages/neighbourhoods – in some of the networks there had been one event, in one of the villages/neighbourhoods where the TEGA in that particular network lived.

Bangladesh, and we don't know what they do". After the event most of the audience collected their food parcels and left – we stayed for a while to chat to the TEGAs and some of their friends and family.

After the event, I asked Farah if it had been discussed whether or not these community engagement events would be an opportunity to 'close the loop' and share some of the data that the TEGAs had collected, or any of the findings that had emerged from the research, as this would not cost more time or money than was already budgeted for. She told me that:

> We honestly don't know if this research will be used, so we don't want to say anything that will put ourselves on the spot in any way. The partners don't fully know themselves yet what they will do with the findings … the aim of the event is sharing the journey of the TEGAs and their empowerment. As these are the people they see every day. If we talked about the bigger picture they probably wouldn't understand. (Farah)

Farah had told me on previous occasions of her frustration at not knowing how the TEGA data would be used in practice, a side-effect in her opinion of the 'consortium model' in which the project had collected data for external development organisations over which Girl Effect and iSocial had no jurisdiction or control. However, her words here, and the words of the man attending the community engagement event above, highlighted to me that alongside time and financial constraints, there were further limiting factors that held Girl Effect back from seeking to 'close the loop' of the TEGA gender data. These included, as Farah mentioned, a belief that the TEGAs and their communities might not be able to 'understand' the findings, but also that the organisation didn't want to be 'put … on the spot' and give the communities from which the findings were taken false hope as to how they might be used to 'do' something tangible.

This brings the question of 'Who is gender data for?' to the fore again, as the logic behind the gender data revolution is that gender data is 'for' girls and their communities, as closing the 'gender data gap' will enable development organisations to develop interventions that better close 'gender gaps'. Yet if these organisations are not held accountable, or are not able to bring about tangible positive change with data, then who is gender data for, apart from the development organisations themselves? Similar points have been raised previously by critical data for development scholars exploring the concept of data justice, such as Albornoz et al. (2019) and Heeks (2017). As Albornoz et al. (2019: p.212) concluded following their study of data collection by NGOs in an informal urban settlement in Lima, Peru, "datafication does not give access to justice to vulnerable communities but in fact, deepens or reproduces instances of oppression by reinforcing the perception of their

lack of knowledge, lack of capabilities or lack of authority to use data to lead their own development". The community leaders that they interviewed expressed frustration at the lack of clear beneficial outcomes originating from their participation in NGO data collection projects. They also argued in favour of investment in capability training and community data infrastructure so that they and their community members could "transition from being data providers to data owners" and engage in "community data governance" to meet their needs on their own terms (ibid.: p.229-231). As Heeks (2017) also finds, drawing on case-studies of data for development in India and Kenya, data justice manifests across several interlinked dimensions. Data justice is 'instrumental' – i.e. it "means fair use of data" or the outcomes of data use (Heeks and Renken, 2017: p.3), but it is also "procedural" – i.e. it requires the "fair handling of data" along the information value chain (ibid.) and it is "rights-based" – i.e. it must ensure "the right to be fairly represented in datasets … but also rights of data access and ownership" (Heeks and Shekhar, 2019: p.11). In applying these aspects of the data justice framework to real-world data for development initiatives in Kenya, India and Indonesia, Heeks and Shekhar (2019: p.11) conclude that "pro-equity data initiatives … utilising some community residents as data sources but largely excluding them from all other information value chain processes", or not upholding their data rights, also had limited success in "ensuring downstream use of the data let alone actual results" (p.15).

This section has therefore presented findings that, in line with this prior data justice work, further problematises the straightforward assumption that gender data is 'for' girls and their communities. In seeking to provide 'fast' and 'cheap' data for development organisations, the TEGA project can be argued to have served the operational interests of these development institutions and their donors to a greater extent than it served the interests of the TEGAs and their communities. For example, despite the TEGAs saying that they would like themselves and their communities to know what the findings of the TEGA data collection were, Girl Effect's concerns about limited budgets and time, as well as data literacy levels of the TEGAs and their communities, and fears about accountability meant that this did not come to fruition.

6.4 Gender data by whom?

Alongside "who benefits from data science", another "uncomfortable" 'who' question that D'Ignazio and Klein (2020: p.26) advocate asking of data projects in order to "start to see how privilege is baked into our data practices … and products" is "who is doing the work of data science?". They ask this latter question in order to argue for "equitable representation … in … data science workforces" to address the ways in which gender and racial bias shape our information and data systems, but also because asking 'who' is doing data work directly relates to 'who' data benefits

and is 'for' (ibid.). As the findings presented in Chapter 4 of this thesis demonstrated, the TEGAs were the ones 'doing' the data collection, but they were not the ones who got to choose the topics or questions that directed this data gathering, or those who analysed and disseminated the data. Yet there is a growing body of research that has sought to document how when data is generated by particular groups or communities, then it is more likely to better represent their goals and needs, and therefore can also better serve to realise these ambitions (Meng and DiSalvo, 2018). As the title of a recent report (Kauahikaua and Pieper-Jordan, 2021) about improving data policy for Native Hawaiians succinctly puts it, "data justice" is data that is "About Us, By Us, For Us". Gutiérrez (2019a: p.43) refers to this increase in "people [who] are proactively engaging with the data infrastructure to generate data in their own terms, make alternative maps, create counter-narratives and produce solutions to their everyday problems, challenging top-down approaches" as 'data activism'.

Participatory research approaches are based on similar principles to 'bottom up' digital data activism and self-determination. Rather than involving the production of knowledge 'about' certain groups 'by' academics, participatory research seeks to re-orient the process so that it becomes one of 'co-creation' shared between communities and researchers (Wakeford and Rodriguez, 2018). As such, in participatory research "people who had previously been marginalised are able to designate the focus of the participatory and dialogue processes themselves" (Sandover, 2020: p.4). Participatory Action Research emphasises the need for this facilitative, co-creative process to lead to specific 'actions' that benefit those involved, on the basis that "science is more than adherence to specific epistemological or methodological criteria, but is rather a means for generating knowledge to improve people's lives" (International Collaboration for Participatory Health Research, ICPHR, 2013: p.5). As discussed in Chapter 2 regarding this thesis' methodological approach, this emphasis on reducing power relations in research and generating real-world material outcomes for the marginalised are also principles of anticolonial and feminist methodologies (Thambinathan and Kinsella, 2021). As Freire (1970: p.52), one of the key pioneers of participatory approaches, states "discovery cannot be purely intellectual but must involve action; nor can it be limited to mere activism but must include serious reflection: only then will it be a praxis".

Drawing on these observations, and the findings explored in Section 6.2, I decided to organise an initial participatory action workshop with the young women in one of the four TEGA networks to explore further, and hopefully develop some solutions to, the issue of 'closing the gender data' loop. My research assistant, Rakiba, and I travelled to Northern Bangladesh in October 2019 to meet with 10 of the TEGAs in Rangpur; Tanzila, Rina, Masuna, Hafsia, Jakia, Kaniz, Shirin, Khaleda, Panna and Rafia. Originally there had been 12 TEGAs in this network, but Tasnina had given birth to a

baby recently, and the other young woman had moved away. The TEGAs who did attend this workshop said that this was because she had been married and had moved to live with her new husband. The location for the workshop was a local government hall equidistant from all of the TEGA's villages. The reason that the Rangpur network was selected, instead of the other three networks, was due to the fact that this concern about the need to share the findings of the data collection with themselves and the wider community had been raised most often by the young women in this region. Time and financial constraints meant it was not possible to undergo this process with all four networks. The workshop lasted from 9.30 am to 4 pm.

In line with the aim of participatory research that the participants rather than the researchers should take the lead (Manzo and Brightbill, 2007), this first workshop consisted of various different participatory activities designed so that the young women could take centre stage whilst myself and Rakiba played the role of "conduits, channelling perspectives and voices which would otherwise remain silent" (Gillies and Alldred, 2012: p. 49). For example, after breakfast the day began with a 'Four Corners' game, in which each of the four corners of the room were labelled with a different response (strongly agree, agree, disagree, strongly disagree). My research assistant then read out a series of statements (all findings from the interviews with the young women) and the TEGAs then moved into the corner that represented how they felt about that statement. My research assistant and I then went over to the different corners where the young women had chosen to stand and asked them why they responded in that way. This led to some insightful and high energy debates about the findings, providing invaluable triangulation for the interview results as well as enabling me to probe further into some of the emerging themes. The young women's responses matched the overarching findings from the interviews, as well as providing further detail. When I asked the young women if they felt that further research was needed in their local communities, all of them chose to stand in the 'strongly agree' corner. During the discussion that followed, Rafia said that she wanted more research to be done so "we can speak to more people". Khaleda added that speaking to 4-5 respondents per topic is "not enough". When we continued to discuss this further, it became clear that the young women felt that the information about these topics needed to reach more people, not just a few respondents.

The next part of the participatory workshop was designed to enable exploration of this point about community information sharing in more depth. The TEGAs in this network had collected data on three different topics – girls' access to economic opportunity, knowledge of digital financial services, and pregnant adolescents' nutritional knowledge - for three different Consortium Partners. Prior to the workshop my research assistant had translated the final reports, written by Girl Effect for the Consortium Partners whom the data was gathered for, from English to Bangla. A copy of each of

these was given to each of the TEGAs for them to read and keep. I introduced a creative group activity in which the TEGAs divided into three groups, each taking one of the reports, and then turning these into posters to present to the rest of the group. This activity proved very popular – the young women told me that they loved being creative and using the colourful pens, paper and stickers that I had brought. They even kept asking for the lunchbreak to be pushed back so that they could keep working on them!

Figure 12: *Pictures showing TEGAs making posters of the TEGA findings, and an example of one of the posters*

After lunch the TEGAs presented their posters to the rest of the group. In the group discussion following the presentations the young women in all three groups agreed that the findings in the final reports matched well with what they had remembered from their interviews with the research participants, and that different aspects of the findings stood out to them. For example, the group that presented the report on girls' access to economic opportunities shared that they were surprised that young women who worked outside of the home reported experiencing increased scrutiny and criticism from their communities for doing so, especially when they are married. The TEGAs in this group said that they would have thought that working outside of the home would lead women to be more respected rather than less. In line with the earlier discussion about the need for more research, the young women in all three groups said 'yes' (or হ্যাঁ in Bangla which sounds like 'heh') when I asked whether they felt these results should be shared not only with themselves, but also with the rest of the community. Jakia said that this was important "because they do not know about these things". Khaleda added that, in relation to the data on girls' economic opportunities, this information needed to be shared "so they value the working women".

This further confirmation that the TEGAs wanted to share the findings of the data they had gathered back with their communities from whom it was gathered then progressed to the next stage of the participatory action workshop – the TEGAs deciding what data they would like to share. The young women all wrote on a post-it note the one topic that they would most like to share with their community. They stuck their post-it notes to a big piece of paper and this was held up so that everyone could see. 'Child marriage' was voted for the most times, followed by 'Girls Education'. One of the TEGAs put 'Child labour' and another of the young women put 'Dowry'. What stood out from this exercise was that the topics which the TEGAs had chosen were not those that they had been collecting data on for the external NGOs, but were other topics that they felt were more important to share.

It was notable that 'child marriage' was the most voted for topic, as this was also raised by TEGAs in other networks besides Rangpur as being an important subject in need of further data collection and action. For example, Ayasha from the Bogra network also said that child marriage was the issue that she would have liked TEGA to research and address:

> Me: Okay. And do you think there are any topics that haven't been researched yet that should be researched in your local community?

> Ayasha: Yeah, here in the village, one of the biggest issues is child marriage, and problems that pregnant girls face, and particularly, harassment of women and child marriage – these are topics that we haven't covered yet. We see these occurrences quite often in our locality. And child marriage is especially common, where girls are married off really young. When we (TEGAs) work, or even when we go somewhere, people will ask us, "Since your work is of this nature, why don't you do something about this (child marriage)?" – it's a big problem in our society.

Husna, also from Bogra, similarly mentioned child marriage as being the key issue facing girls that she wanted TEGA to 'work' and raise 'awareness' on:

> Husna: We all want [the project] to improve even more … if some more work could be done on child marriages …

> Me: What sort of work?

> Husna: I mean also awareness like parents and everyone becoming a little more aware - I think it would be improved.

> Me: What sort of work on awareness?

> Husna: Awareness that girls should not be married off at a young age, that they should study, help their parents, they should work and gain independence. So that they can lead their lives independently … explaining it to them and, like, maybe conducting a training for the parents or through a meeting, explaining it to them.

The fact that the TEGAs taking part in the participatory action workshop, and many of the others whom I had interviewed, had chosen different subjects, such as child marriage, as being most important to them, rather than the ones that Girl Effect and the Consortium Partners had tasked them to collect data on, reflects anticolonial feminist critiques of the misrepresentation of women in the majority world. As previously discussed in Chapter 4, Section 4.2, anticolonial feminists have challenged the ways in which Western feminists have "discursively colonize[d]" women in the majority world, without making space for women from these places to represent themselves (Mohanty, 1988: p.334). Rather than be (mis)represented by more powerful others, however, the TEGAs were able to choose collaboratively the information about girls that they wanted shared with their communities during this participatory process. Through a group discussion the 'TEGAs decided that they would all like to work on one topic together, and that they would select the most voted for topic – child marriage. They also chose community events as the method to disseminate information by, to which local people and also the chairpersons of each of the three villages in which the TEGAs lived would be invited. Crucially, the young women wanted these events to take place three times, once in each village so that each community could benefit equally. The workshop ended with us agreeing that we would all meet again to decide on and prepare the content of these community events.

This second participatory workshop took place in November 2019. The day began with participatory diagramming, with the TEGAs writing down what they wanted their communities to know about child marriage, including their own personal views and experiences, or those of people that they knew. Two of the TEGAs present, Tanzila and Shirin, had been married before the age of 18, and shared their own experiences with the rest of the group:

> I married into a good family so I didn't face too many difficulties. I think it's good that I got married because I was experiencing a lot of eve teasing, but that stopped after I got married.

And because I married into an educated family I was able to stay in school, but that's not possible for most girls when they get married. (Tanzila)

I am still studying too so I am happy … but I have more responsibilities now, like looking after my in-laws. (Shirin)

Tansina, the TEGA who had recently had a baby and so had not been able to attend, had also married before she was 18. As the discussion continued, the rest of the group said that this was a more typical case of child marriage – she had been having an 'affair' with her now husband, so her father had insisted that she married him. However, after the marriage her husband and in-laws began treating her badly, including restricting her freedom of movement, and they did not want her to participate in 'TEGA' anymore, or continue her education. The group concluded that early marriage manifests in different ways for different young women, but that these issues were common in most cases they had seen in their communities. They agreed that they wanted to share some of these experiences in their community events, highlighting the challenges young women in their villages faced. We worked together to create a powerpoint on the project laptop that the District Officer of the Rangpur network had brought to the session. This would be projected onto a screen for the community engagement. The TEGAs selected key information to share, and included a 4 minute World Bank video from YouTube called 'Our Daughters' which tells the story of a young woman in Bangladesh being forced to marry and drop-out of school against her will. In their village groups the TEGAs also chose one of them to present a speech written together during the session. They also asked if the TEGA District Officer, me, and whichever local officials attended on the day would also give short speeches.

Figure 13: *TEGAs taking part in participatory diagramming about child marriage*

6.5 Anti-colonial feminist gender data for development in practice

The three community events took place over two days, with two of the events happening on the first day and one on the second. The over all conclusion of the TEGAs following these community events was that they were happy with how they had turned out. Rafia, for example, described them as "a success". Across the events, the TEGAs and the field officers were pleased with the turnout (55, 65 and 25 attendees respectively) and that the attendees were a mixture of ages and included both men and women. In two of the villages, or 'unions', this was the first community event there had ever been on child marriage. In the village where there had been workshops on child marriage before, the TEGAs said that they had not been well received in comparison to their own sessions. The excerpt from my field diary included below, in which I discussed the outcomes with Rina, Masuna and Rafia, who were the TEGAs in this particular union, notes the reasons why the TEGAs felt that their child marriage sessions were particularly 'successful':

> After the event we stood outside the local union building, with many of the attendees staying for a while to chat to one another. Rina, Masuna and Rafia were smiling and joining in. I asked them for their thoughts on the session, and Masuna said that the 'best part' was that 'everyone got to share their opinions'. Apparently local NGOs have held sessions on child marriage here before but only with working women and using food as a bribe. Rina said that this isn't a 'good approach', as women are 'not the only ones who need to change'. They said that what made this event different was that we used technology, that we included men and that we also we shared good quality information and in an engaging way. Also the participants got a chance to speak which they liked, rather than them just being spoken to. [Research diary 2; November 2019]

The only aspect of the event that Rina, Masuna and Rafia were unhappy about was that the chairman had not attended. He was downstairs leading a meeting about land disputes. One of the attendees commented that he should have been there to listen, as he signs fake certificates that say girls are older than they are so that they can be married. The chairman had not been able to attend the second community engagement event either. However, the TEGAs there, Hafsia, Jakia and Kaniz, did not necessarily think that this was a bad thing. Jakia commented that the fact that the chairman had not attended likely was the reason that the open debate section of the event had been so extensive and lively, with many different people raising their hands to speak and discuss their perspectives on child marriage. Jakia added that she thought people would be "talking about it for days". Kaniz also was keen to highlight how it was important that we were holding three events with one in each union, as prior TEGA community engagements had only been held in one of the unions in each upazila

(sub-district), and were only open to family members of the TEGAs. As a result, fewer people had been able to attend. Jakia said that she wanted more events to be "open to the wider community". The first community engagement, co-led by Shirin, Khaleda, Panna, and Tanzila was the only one where the chairman did attend. Whilst the open debate section of this event was less extensive, with only two men wishing to say something about child marriage, the chairman gave an impassioned speech against child marriage, in which he asked local parents not to plead with him to forge certificates, which Khaleda said had meant the event would have a "good hype". Khaleda gave the speech at this event, which was very emotional and referenced, without using their names, the experiences of some of her close friends who had married at a young age. She also thanked her father for supporting her to continue her education. Her father came up to us at the end and said – "this is the first time I have ever received recognition because of my daughter. I am so happy and proud".

6.6 The Paradox of Anticolonial Feminist Data for Development

The TEGA's positive assessment of the events was encouraging. I also felt pleased with how they had gone, and happy to have been able to, in some small way, facilitate and fund the process so that the TEGAs could have some of their suggestions for how to improve the TEGA project realised in practice. Yet as Thambinathan and Kinsella (2021) write, "the decolonization of research is … achieved by being critically reflexive and enabling reciprocity within relationships". It is through engaging in the critical reflexivity that they advocate for, however, that the limitations of this participatory process in 'enabling reciprocity' became clear. These reflections also bring to light the constraints of the very notion of 'anticolonial and feminist' data for development, whether participatory or not.

As examined in Chapter 3, 'An Anticolonial Feminist Methodology', the extent to which it can be said that the participatory research process that the TEGAs and I underwent together can be considered to have upheld the principles of 'true participation', or indeed of anticolonial feminist praxis, is constrained. Dedding et al. (2021: p.20) state that "exploring the boundaries of 'good' Participatory Action Research" is a "pressing issue" in order to "increase the transparency of the complex reality of a PAR process" and to avoid the "risk of tokenism". The participatory process that the TEGAs and I underwent together did speak to many of the "underpinning values and ethical principles" of participatory action research, as it did, on at least some level, entail "mutual respect", "equality and inclusion", "democratic participation", "active learning", "making a difference", "collective action" and "personal integrity" (ICPHR, 2013). It can also be argued, as the process did make space for the TEGAs to enact gender data on their own terms, that it lessened

hierarchies of power and brought about real-world change in a manner befitting feminist and anticolonial research ethics (Mohanty, 2003; Tuhiwai-Smith, L. 2012).

However, as initially outlined in Chapter 3, it cannot be claimed that the challenges of ensuring equitable power relations and research outcomes was fully resolved through taking this participatory approach. For example, the issue of 'closing the loop' of gender data was raised not only by the TEGAs in Rangpur, but also by those in other networks. However, due to my limited temporal and financial resources I could only work with one network – which could be argued to have led to the privileging of one of the TEGA networks over the others. Furthermore, whilst these workshops did provide space for the TEGAs to discuss and collaboratively decide that they did indeed want to work together to 'close the loop', and to choose to share data on child marriage rather than the subjects they had been set for TEGA, not all of the TEGAs taking part in the participatory workshops wanted to focus on child marriage – some wanted to share data on child labour, for example. Some of the TEGAs in the group were more confident in speaking out, whilst others were quieter. Drawing on Kothari (2001), Cahill (2007: p.303) writes that "there is a danger that participatory work can prioritise *consensus*" …. and it is therefore "crucial to create an environment in which differences [can] be aired constructively". Whilst I tried to facilitate a combination of non-verbal methods, such as diagramming, alongside group discussion, to enable those less comfortable with expressing themselves in the latter manner to participate, it is also true that some of the TEGAs played a more significant role in leading their peers to make decisions, such as whether to work on one topic together, and whether it should be 'child marriage' over other subjects. Furthermore, in the limited time we had available there was some, but not much, room for collective reflection and evaluation of the participatory process, or scope to iterate and take it further together. Gaventa and Cornwall (2008: p.172) observe that "participatory research which becomes only 'consultation' with excluded groups at one point in time is limited, for it prevents the possibility that investigation and action over time may lead to a change in the knowledge of people themselves, and therefore a change in understanding of one's own interest and priorities". As such, whilst this participatory project may have "seemed to be a solution for overcoming power asymmetries in development practice and research, presenting a potential answer to postcolonial concerns … power relations evolved and also persisted in these participatory processes" in myriad different ways (Schurr and Segebart, 2012: p.148).

The perpetuation of some unequal power relationships in this participatory project is also linked to the uneven distribution of the positive outcomes that came about as a result of the process. As explored in greater detail in Chapter 3, Section 3.8.3, when reflecting on the outcomes of this participatory research it cannot be ignored that I myself have benefitted to a great extent, in that the

findings from this process have contributed to my PhD thesis. I fed back the findings from my research to Girl Effect, and will publish them so that they can be read more widely. However, this process may not tangibly benefit the TEGAs involved in the participatory research, as the project is no longer run by Girl Effect in Bangladesh. As Crooks and Currie (2021: p.206) write, "the material or symbolic benefits of data-intensive projects frequently accumulate to those who are better resourced and therefore better able to extract forms of value from such projects". Certainly, the three events on child marriage that the TEGAs and I co-created and delivered were real interventions that the TEGAs felt had a genuine impact. There may have been unforeseen outcomes from these events that I am not aware of as I have not been able to return to Rangpur since 2019. The village chairman did attend one of the events, thus in some way enabling an engagement with local power holders. But these one-off events were too small in scope to address the structural drivers of child marriage, including poverty. Indeed, drawing on postcolonial feminist theory Bessa (2019: p.1941) critiques the way in which "interventions providing 'empowerment-as-information' for girls to be agents of change" … "ignore the complexity of decision-making processes and broader structural factors related to child marriage", leaving girls in a "state of informed powerlessness".

It is perhaps unreasonable to expect that a participatory research project undertaken as part of a DPhil could dismantle the global power structures responsible for the perpetuation of global poverty and child marriage. But this observation that the limits to change that the participatory project could engender was because it was not connected to, or able to address, these broader political processes and power structures, sheds light not so much on the limitations of participation, but on the concept that data for development, no matter how participatory, can ever be 'anticolonial and feminist'. As Section 6.2 argued, drawing on the findings gathered from across the fieldwork period, we can see that the TEGA project was not designed to bring about *radical change*. It was short-term, top-down and depoliticised, like the majority of international development interventions led by Western NGOs in the majority world. As anticolonial feminist praxis is about majority world-led movements and solidarity building that challenges Western and patriarchal discursive and material domination, then mainstream international development projects are, at their core, antithetical to anticolonial feminism. This is similar to the conclusions drawn by Heeks and Shekhar (2019: p.1004) who analysed data for development projects in order to assess their capacity to bring about social justice. They found that because the projects they researched were mainstream top-down "initiatives … funded to a significant degree by international donors", this "led initiatives to be shaped by the agendas of these donors, which were for highly visible, short-term results". These organisations "were much less interested in paying for the longer-term, less-visible activity of getting that data used to change urban decisions" and in "funding [the] use of data by communities themselves"

(ibid.). As they did not seek to enhance the data and political capabilities of the communities from which the data was taken, so that they could themselves use their own information to advocate for, and bring about, change, these projects did little advance socio-data justice. The same can be said about TEGA.

It can therefore be argued that, as Williams (2004: p.569) notes, it is not participatory approaches per se that are the issue, but the fact that it in international development, attempts at participation are often shaped by "donor … agendas to provide relatively efficient service delivery rather than offering any radical challenge to the status quo". 'Participation' alone is not enough – when it is incorporated into depolitical projects, it will not achieve radical political change. No matter how many participatory diagrams the TEGAs and I drew, there was not going to be the option to reshape the programme so that it resolved the more fundamental, structural concerns that the TEGAs, and many of the staff, raised, including how much paid work the TEGAs received, and the amount of training they had (for more detail on these issues see Chapters 4 and 5). The project budget, timeline and frameworks were set from the beginning, and radically re-envisioning that would have required going back in time and seeking buy in from Girl Effect, their consortium partners, and the funder DFAT (Australian Department of Foreign Affairs and Trade) to take a bottom-up, politically engaged, social movement focused approach to gender equality, data and 'development', that made space for the TEGAs to have their concerns raised and addressed. However, this is completely at odds with the approach that Girl Effect has taken in its 13-year history (Moeller, 2018). Nyamugasira (1998: p.297) argues that many international development organisations "'have come to the sad realization that although they have achieved many micro-level successes, the systems and structures that determine power and resource allocations — locally, nationally, and globally — remain largely intact". On the basis of a number of issues, including there being a "tendency amongst NGOs to eschew partnerships with more political elements within civil society", largely due to the fact that they depend on external sources of corporate or government-based funding to exist and therefore have to prioritise "upwards accountability" over "downward accountability", Hickey and Mohan (2005: p.244-255) conclude that "NGOs face severe limitations in seeking to be genuine agents of transformative development through participatory approaches". As such it can be argued that pursuing anticolonial feminist data for development through participation is rendered obsolete when the 'development' prism in which this attempt is taking place is one that will not allow for true participatory transformation.

6.7 The Revolution will not be datafied – or will it?

The previous section has, through situating the participatory process that the TEGAs and I collaborated on with the aim of 'closing the loop' of the gender data that they gathered for the TEGA project in the wider literature, laid bare the structural constraints to realising an anticolonial feminist world through the prism of 'international development', whether datafied or not. However, if mainstream gender-focused international development is unavoidably inflected by neocolonial patriarchy, thus ruling out the possibility of 'anticolonial feminist data for development', this raises questions as to whether 'data' can, or cannot, play a part in a transformation of power relations, and if so – how?

There are promising signs within the literature that data could play a role in anticolonial feminist futures, in particular from the field of 'data activism' (Milan and van der Velden, 2016: p.62). 'Data activism' refers to both "actions that seek to resist the personal data accumulation activities of governments and corporations, as well as *more proactive production and appropriation of data for progressive causes*" (Cinnamon, 2020: p.624). There are a growing number of examples of bottom-up data contributing to social justice, ranging from projects focused on developing the data skills of those in social movements, to developers creating tools that can be used by social justice campaigners, to geoactivists engaging in counter-mapping, to those engaging in radical data journalism (Gutiérrez, 2019). Some of these ventures have aims that are patently feminist and anticolonial. For example, Chenou and Cepeda-Másmela (2019: p.396) document the creation of a national index of sexist violence in Argentina. Through using simple, free online survey tools the #NiUnaMenos team crowd-sourced women's accounts of male violence without needing external funding or government support, which provided evidence to support their campaigning in an inclusive, participatory manner. As such, Chenou and Cepeda-Másmela (2019: p.396) argue that this case "illustrates how activists in the Global South can appropriate technology and promote new uses that not only respond to their local and immediate needs but also contribute to the production of alternative imaginaries on big data in the longer term". Perhaps, then, there is a future for anticolonial feminist data for – not 'development' in the mainstream sense – but 'development' in the form of radical 'good change' led by majority world women, for majority world women.

Despite these celebrations of the counter-hegemonic potential of data, some data theorists have presented more cautious accounts of the potential of data activism. Crooks and Currie (2021: p.201), for example, draw attention to the "double bind" that data activism presents for community organisers. Some critics of data activism have argued that data technologies do not always end up achieving emancipatory ends (Dillahunt et al., 2017), partly because social hierarchies, and in particular racism, shape these innovations so that they can reproduce inequality even when they are harnessed for 'good' (Benjamin, 2019). The demands for, and usage of, data is also mediated by the

more powerful, so that communities are shouldered with the burden of providing 'evidence' which, once out of their hands, is used more often for the purposes of mediators and elites, rather than the communities themselves (Woodsum, 2018). For these reasons Crooks and Currie (2021: p.207) argue against "a presumptive data positivism" arguing that "numbers will not save us either". Alongside other concerns, these critiques cast doubt on the notion that there is some utopian place beyond neocolonial and patriarchal power relations where data technologies could be appropriated freely for anticolonial feminist ends without limitations.

Whilst there are certainly challenges and constraints to the use of data for radical social change, some theorists contend that there is still hope for data to at least play a part in these movements. For example, Cinnamon (2019: p.625) draws on the concept of technopolitics, which refers to the "deep, complex and non-instrumental conception of the relation between technology and politics" (Treré and Carretero, 2018: p. 53), to demonstrate "the limitations of data as artifacts capable of political action in and of themselves". He draws on empirical evidence gathered on data activism in South Africa, to demonstrate that despite the "imagined affordances of data" (ibid.: p.633), grassroots power comes from an "entanglement of social, political, and technological agencies", of which data is only one part alongside moral-political discourses, legal systems and so on (ibid.: p.635). For example, one of the activists that he speaks with, who focuses on housing activism, explains that whilst they use data, it is not 'data' that has the capacity to instigate action, but instead "invoking a growing sentiment that contemporary governance decisions strikingly resemble those of the apartheid regime" (ibid.: p.635). This corroborates with Crooks and Currie's (2021: p.201) conclusion that, despite the risks of data activism for grassroots organisers, there is the potential for "agonistic data practices". Agonistic data practices involve "community organisers use the esthetic and affective potentialities of data to mobilize collective action", rather than as a tool for the 'double bind' of consensus seeking on the terms of the powerful (ibid.: p.202). In this way, "communities can use data for contestation, not resolution, in efforts to motivate political action through affect and narrative-building" (ibid.: p.210).

These insights therefore raise the hopeful possibility that data could beneficially serve, and negate risks, for anticolonial feminist movements in the majority world, as well as other social justice campaigns, beyond the narrow confines of mainstream international development. This is a fruitful avenue for anticolonial feminist academics, policy-makers and practitioners to research and act upon in the future.

6.8 Conclusion

This chapter has provided empirical evidence that demonstrates that taking a participatory approach to gender data for development can address some longstanding anticolonial feminist critiques of international development. Participatory research emerged out of the desire to "break the monopoly on who holds knowledge and for whom social research should be undertaken" (Fine, 2008: p.215), aiming to do research 'with' rather than 'on' people, producing findings that not only directly benefit the participants but also fairly represent them (Cahill, 2007). Resonating with anticolonial feminist concerns about international development interventions being led by and for development actors, thus perpetuating misrepresentations of majority world women as well as neocolonial and patriarchal power relations, the TEGAs also felt that the project did not gather the gender data they felt was most important to them and their lives, and that it extracted information from their communities rather than sharing knowledge equitably. Engaging in the participatory action research process together not only enabled these issues to be discussed and brought to the fore – it also meant that the TEGAs could work together to gather information on child marriage, the subject they felt was most critical to them and their lives, and to develop and deliver community events to share this 'gender data' with those in their local area. As such, based on these findings, it can be concluded that as a participatory approach shifts gender data for development so that it becomes led by and for majority world women, rather than by and for Western development actors, it can address some anticolonial feminist critiques of (data for) development.

Yet it would be naïve to claim that a short-term, small scope participatory action project such as this provides the simple, instrumental resolution to neocolonial and patriarchal power relations. As Cahill (2007: p. 299) writes "we need to be wary of broad applications of the term 'participation' because it often masks tokenism and the illusion of consultation that may, in fact, advance dominant interests". Whilst I facilitated this participatory research with the 'TEGAs' with the best of anticolonial feminist intentions, in practice it cannot be denied that it replicated some of the problematic aspects of mainstream international development that we sought to disrupt. For example, the participatory process not only provided space for the 'TEGAs' to enact their agency to address some of their concerns with the programme – it also provided findings for my PhD, thus arguably furthering the long history of Westerners profiting from the testimonies of majority world women (Trinh, 1989). In the words of Crooks and Currie (2021: p.206) "community-based or participatory data activist projects produce benefits that more easily accrue to elites, experts, professionals, and data workers rather than to community members themselves".

However, rather than it being participatory approaches to data per se that are at issue here, this chapter demonstrated that the extent to which the participatory process that some of the TEGAs and I underwent together was limited was due to the fact that it took place within a top-down, short-

term, mainstream international development project which left little room or scope for radical, long-term co-operative organising for anticolonial feminist social change. As Heeks (2017: p.5) has argued data justice is unavoidably structural. It is impossible for anticolonial feminist data for development, no matter how participatory, to exist in the neocolonial patriarchal international development industry. However, despite these limitations, this chapter has provided an empirically substantiated critique of mainstream gender data for development practices, and demonstrated the extent, however limited, to which participatory gender data that is by and for majority world women can address these concerns. Furthermore, through drawing on recent literature on data activism, and in particular Crooks and Currie's (2021) concept of 'agonistic data practices', this chapter has concluded that there is hope for data to play an affective role in motivating collective and collaborative organising led by women in the majority world that contests neocolonial and patriarchal power structures in the future. This chapter therefore contributes to the ongoing debates regarding the role of data and development in bringing about a gender equitable and just world, with implications for future research and practice.

Chapter 7: Conclusion

7.1 Introduction

In this thesis, I have explored the phenomenon of gender data for development through an in-depth anticolonial feminist examination of Girl Effect's TEGA project in Bangladesh. In recent years, numerous international development organisations have launched and invested in data collection and analysis projects that specifically focus on 'closing the gender data gap'. In other words, these institutions are using digital technologies in novel ways to amass more information on women in the majority world. Those involved have done so in the belief that having access to new and higher quality data on women's lives will enable them to design, deliver and monitor more effective development projects for gender equality, thus 'closing the gender gap' between men and women once and for all. However, despite the growing number of these 'gender data' initiatives, scant academic analysis of this trend is available, particularly of real-world programmes operating on the ground. This thesis research therefore set out to address this gap, through gathering empirical data on Girl Effect's TEGA digital gender data project in Bangladesh, and analysing the findings through an anticolonial feminist lens. Whilst anticolonial feminist theories are long established, through applying them anew to the case of gender data for development in the form of the TEGA project, original conclusions were able to be drawn about the ways in which gender data does, and does not, result in the transformation of gender relations. This conclusion chapter begins, in Section 7.2, by discussing the contributions that this thesis has made to the literature in more depth. Secondly, this chapter then summarises the findings of the thesis in Section 7.3, and demonstrates how they answer the research questions. Section 7.4 confers the overarching conclusions that can be drawn from this research, and Section 7.5 concludes by presenting recommendations for future research, policy and practice.

7.2 Contributions

This thesis has brought to light new findings which make a unique contribution to the literature and towards deepening our understanding of data, development, and the pursuit of gender equality. Chapter 2 highlighted the fact that despite the enthusiastic uptake of the 'gender data revolution' by mainstream international development organisations, there has been relatively little academic analysis of this specific D4D (data for development) phenomenon (Delnevo, 2017; Fuentes and Cookson, 2020). One of the exceptions to this is Fuentes and Cookson's (2020: p.883) co-authored paper, which, as Chapter 2 outlined, examines the "gender data revolution" in development from a feminist geographical perspective. They conclude that the move towards gender data will not live

up to the "radical promise" of "eradicating gender inequalities and injustices" as long as the focus continues to be on large-scale, quantitative data that "*dislocates* women's experiences from space and time" (ibid,). Delnevo's (2017: p.IV) Master's thesis, also introduced in Chapter 2, takes a different approach to the subject, utilising "postcolonial and decolonial thought and feminisms" to examine the Bill & Melinda Gates Foundation's discourse on gender data. Through this study Delnevo identifies the ways in which the gender data discourse perpetuated by the Foundation "continues a colonial history of counting, classifying, and governing Others" (ibid.). This thesis sought to build on these works, and extend them in new ways. For example, Delnevo (2017) engaged in discourse analysis for her thesis, and whilst Fuentes and Cookson (2020) drew on empirical cases of development projects from their own research to elucidate their theorisations, neither of the cases that they used were of mainstream development organisations engaging in gender data work specifically. Chapter 2 of this thesis therefore identified a gap in the literature of empirical case-studies of development projects seeking to 'close the gender gap' through 'closing the gender data gap', as well as a lack of work on the rise of gender data in development over all.

Alongside this lacuna, Chapter 2 of this thesis also identified further ways in which this thesis could make a contribution to the literature. Having demonstrated a lack of critical literature on gender data for development, the chapter then moved on to reviewing critical literature on international development more generally. In reviewing two of the key critical perspectives on international development – post-development and anticolonial perspectives (which includes postcolonial and decolonial thought and practice) – it was acknowledged that postcolonial and decolonial critiques have made significant contributions to re-envisioning how we might 'think' and 'act' differently in pursuit of 'good change' that is truly transformative (McEwan, 2009; Mignolo and Walsh, 2018; Noxolo, 2016; Quijano, 2000;). Postcolonial and decolonial feminists, in particular, have been holding development projects specifically targeting women in the majority world to account for years, and imagining more radical alternatives (Kothari, 2002; Mohanty, 1984; Spivak, 1985; Syed and Ali, 2011). Yet despite this legacy of work, when looking at the body of literature on ICTs for development, also known as ICT4D, this thesis identified a lack of specifically anticolonial feminist work on data or other digital technologies. This is particularly surprising considering the large number of ICT4D projects with a gender focus. More work in this vein is forthcoming, however, such as Narayanaswamy's (2016) critique of the Knowledge for Development (K4D) field and the way in which it constructs women in the majority world as having a 'knowledge deficit' fixable by western 'experts' and ICTs. Another example is Dé et al.'s (2018) use of Spivak's decolonial feminist work on the politics of language to argue for the need for local language-based ICT4D projects that don't rely on English as the default operating language. It is work such as this that leads Asiedu

(2012: p.1200) to observe that anticolonial feminists "offer important ideas to address gender and ICT issues facing the global south".

Aside from the ICT4D literature, Chapter 2 found an additional omission in the literature which this study could address. When reviewing the more recent fields of critical data studies and data feminism, this literature review found that they had little crossover, despite both being highly pertinent to studying the rise of gender data in development. For example, it was noted in the relevant papers found that critical data studies had drawn on anticolonial theory to a greater extent than feminist theory (Couldry and Mejias, 2019; Mann, 2017; Mann and Daly, 2019; Benyera, 2021), whilst feminist data studies had employed feminist theories to a far greater extent than anticolonial theory (Corple and Linabary, 2020; D'Ignazio and Klein, 2020; Hill et al., 2016). Little of the feminist data studies literature found had looked at data for development (Concannon et al., 2019; Cooky et al., 2018; Fotopoulou, 2019; D'Ignazio and Klein, 2020), whilst the critical data studies for development papers found had not examined gender data for development specifically (Albornoz et al., 2019; Heeks, 2017; Heeks and Renken, 2017).

Identifying these gaps in the overlapping and wide-ranging literature befitting a study of gender data for development – an absence of empirical studies of real-world gender data for development projects, limited use of anticolonial feminist theory in studies of ICTs for gender and development, and little anticolonial feminist critical data or data feminist work – provided the rationale for this thesis. Girl Effect's TEGA project in Bangladesh was a gender data for development project seeking to 'close the gender gap' and bring about gender equality in the majority world through 'closing the gender data gap' and collecting new and improved digital data on women and girls' lives. By investigating the TEGA project in Bangladesh, this thesis has contributed new empirical understandings to the literature as to how the 'gender data gap' discourse shapes, and is shaped by, on the ground realities. As Chapter 3 explained, the findings of this research were collected via six months of participant observation, interviews and participatory action workshops. Viewing these findings through an anticolonial feminist lens, which as of yet has been little applied within the field of critical data for development studies, enables this thesis to make a theoretical as well as an empirical contribution, shedding new light on the ways in which gender data for development upholds power hierarchies even as they seek to 'close' them due to the deeply embedded neocolonial and patriarchal structuring of mainstream development. Whilst the agency of those involved in the TEGA project meant that it did to some extent 'close gender data gaps' and 'close gender gaps', the short-term, top-down and instrumental nature of the programme meant that radical, transformative and lasting change for the lives of the young women involved in the project was lacking.

7.3 Summary of the Findings

As well as having implications for those hoping to harness data for 'good' in the majority world in the future (see Section 7.5 below) the findings generated through this thesis project have answered the research questions that it set out to address:

1. **From an anticolonial feminist perspective, what is the contribution of digital peer-to-peer research with young women towards closing the gender data gap and the gender gap?**

Chapters 4 and 5 presented and discussed the findings from this thesis which pertain to this research question, and show that whilst the TEGA project in Bangladesh – a digital peer-to-peer research project – did make some contributions towards closing the gender data gap and the gender gap, it cannot be said to have closed them significantly. The logic underlying the gender data discourse is that 'closing the gender data gap', by collecting new and better information on girls' lives, will lead to 'closing the gender gap', as it will enable improved development projects to be designed that effectively address gender inequality. However, for this thesis these notions of 'closing the gender data gap' in order to 'close the gender gap' are also a heuristic device that helps us to think through whether gender data for development projects truly make a tangible difference to the lives of young women in the majority world. The findings discussed in Chapters 4 and 5 (see below for more details) suggest that the project did benefit the TEGAs, and to lesser extent other young women in their communities, in palpable ways. However, these positive outcomes arose more from the fact that TEGA provided the young women involved with the opportunity to earn an income, learn new skills, and so on, than from the 'gender data' that it gathered. As such this thesis argues that those seeking to 'close the gender gap' must look beyond 'gender data', as data alone cannot address the structural power relations that perpetuate inequality.

   a. **In what ways did the TEGA project in Bangladesh close the gender data gap?**

Chapter 4 focused on the first half of the gender data for development discourse, which posits that 'closing the gender data gap' will lead to the 'closing of the gender gap'. Over the two years that the TEGA project was led by Girl Effect in Bangladesh, a significant amount of data was collected on girls' lives. The five data collection projects that the TEGAs carried out on behalf of the consortium partner organisations covered girls' economic empowerment, the sexual and reproductive health

needs of unmarried girls, the nutritional needs of RMG (ready-made garment workers), sexual harassment, and people's perceptions and knowledge of digital financial services. These gender and development related topics were chosen as they were identified as 'gaps' whereby more information was required. In enabling the collection, analysis and dissemination of data on these subjects, it can be argued that the TEGA project made some contribution towards closing 'gender data gaps'.

Yet the findings generated by this thesis also found a number of factors that hindered the extent to which it can be said that the TEGA project in Bangladesh fully 'closed the gender data gap'. As Chapter 4 discussed, these included the fact that as the 'gender data gap' is defined in different ways by different people, whether or not it can be said that it has been 'closed' will depend on whom you ask. The TEGAs, whilst thinking that the research topics they worked on as part of the project were important, also identified other critical 'gender data gaps' to those that Girl Effect and the consortium partners selected. Whilst there will always be new areas for research, as the world around us is in constant flux, it can still be said that the TEGA project in Bangladesh made a contribution towards a particular version of the 'gender data gap', one that was reflective of the priorities and needs of international development organisations to a greater extent than it was of those of the young women and their communities who were involved.

In addition to this finding, this chapter also examined the requests from the TEGAs, and some of the project staff and consortium partner representatives, for further research training for the TEGAs. The TEGAs made considerable progress in developing their research skills. However, it was felt by these stakeholders that more training and support would have better enabled them to carry out more robust data collection and generate more high quality, rich findings that better contributed towards the 'closing' of gaps in knowledge and understanding about girls' lives in Bangladesh. The five days of initial face-to-face training, as well as remote tasks set for them via the TEGA app and occasional refresher face-to-face training sessions were not deemed to be adequate by many of the TEGAs and these other stakeholders.

Other constraints that the TEGAs faced in collecting high quality data that best contributed towards 'closing gender data gaps' came about due to the power relations between the TEGAs and some of the respondents that they interviewed. Whilst many of the TEGAs, and some of the young women that they interviewed, stated that they did think it was more comfortable for a girl to be interviewed by another girl, and that this would lead to more 'authentic' findings, one of the young female respondents that I spoke with said she felt shy talking to someone who she saw often around the village. Furthermore, the TEGAs did not only interview other young women, but for some of the projects were required to interview older women and men. The male respondents that I spoke to

said they would prefer to be interviewed by another man. In addition, the TEGAs and project staff stated that not all of those approached to be interviewed by the TEGAs took part, often due to their families being concerned about the risks this posed to their daughters. This too will have shaped the findings, as certain views and experiences may not therefore have been represented in the research. These findings demonstrate that 'girls speaking to girls' is not a guarantor for getting at the 'unfiltered truth', but instead that research is always shaped by power relations no matter the gender and age of the interviewer and interviewee. This further complicates the extent to which it can be said that the TEGA project unequivocally 'closed gender data gaps'.

The TEGAs and project staff also raised the fact that finding private spaces to conduct the data collection in the homes of the respondents was a challenge, and that this will have affected how open those being interviewed were able to be, further shaping the data gathered. Another factor that also constrained the ability of the respondents to feel relaxed and able to answer 'honestly' was the fact that the TEGAs were required to film them answering the questions on their TEGA smartphones. Many of the TEGAs, and some of the project staff, said that this made the respondents feel uncomfortable. Inconsistent mobile signal, alongside the requirement to video the responses, also limited how long the answers to each question could be, which reduced the ability of the TEGAs to probe and fully capture the depth of what each respondent wanted to say.

Aside from factors inhibiting the ability of the TEGA project to *collect* data that accurately represents girls in Bangladesh, this chapter additionally discussed findings which show that the programme faced challenges in accurately *processing* this data too. One of the project research assistants that I spoke with shared that she had struggled to understand what some of the respondents were saying due to the regionally specific dialects that they spoke. This 'gap' in understanding between the project staff involved in processing the TEGA data, and the TEGAs and their respondents whom the data was gathered from, highlights the practical challenges inherent in carrying out research across cultures and places. However, more significantly than that, this concern over accurately translating the data given by the respondents emphasises how the way in which the TEGA data was translated, transcribed, analysed, and written up by people occupying very different positionalities to those from whom the data was taken will have inevitably shaped the data in ways that constrain how representative the processed data can be of what the respondents were originally trying to convey. This is further evidence, therefore, that problematises the extent to which it can be said that the TEGA project 'closed gender data gaps' through capturing the 'truth' about girls.

Lastly, this chapter also explored the finding that some of the stakeholders taking part in the TEGA project in Bangladesh held different ideas about what sort of data was required to adequately 'close

gender data gaps'. Some of the consortium partners wanted more quantitative data on a greater scale, which they considered more 'representative' and 'usable'. A number of the Girl Effect and iSocial staff based in Dhaka wanted to meet this requirement in order to ensure that the project would be able to attract funding from these organisations once the DFAT grant had run out, so as to ensure the longevity of the project. The Girl Effect staff in London, however, were keen for the TEGAs to continue to collect qualitative, small-scale data. Yet some of the Girl Effect team in Dhaka, and one of the consortium partner representatives that I spoke to, felt that the supposedly 'qualitative' data the TEGAs were gathering was in fact 'quantitative', due to the fact that it mostly comprised of short, closed questions with limited opportunity for probing. This finding further demonstrates that different stakeholders within the TEGA project in Bangladesh held differing views as to whether the project succeeded in collecting the right type of data, and the necessary amount, to be able to say that the programme achieved its goal of 'closing gender data gaps'.

As a whole, the findings discussed in this chapter paint a complex picture of the contributions made, as well as the challenges faced, by the TEGA project in Bangladesh towards 'closing the gender data gap'. In situating these findings within the literature, this chapter has also demonstrated the ways in which some of these challenges are shared more widely by other research projects. The ways in which power dynamics between the researcher and researched shape research findings, for example, is an inescapable part of data collection. However, this chapter has also highlighted the ways in which the particular design, delivery and context of the TEGA project in Bangladesh coalesced, in unique ways that some of those participating in the project felt ensured its contribution towards 'closing the gender data gap', but that others highlighted as demonstrating how it left 'gender data gaps' far from 'closed'.

b. In what ways did the TEGA project in Bangladesh close the gender gap?

Chapter 5 explored the second half of the 'gender data for development' discourse, by considering the contribution that the TEGA project in Bangladesh made towards the 'closing of the gender gap' in equality between men and women as a result of collecting 'new' gender data. This chapter noted that there are multifarious ways of defining the 'gender gap'. One of the 'gender gaps' that the TEGA project sought to address through data collection was girls' lack of economic opportunities in comparison to boys, but other organisations might focus on girls' lack of access to technology and so on. However, across all these understandings of the 'gender gap', what unites them is that they are all instances of a 'gap' in equality between men and women. Just as there is no singular definition of the 'gender gap' this chapter also highlighted that there are multiple ways of going about seeking

to 'close' gaps in gender equality. The Girl Effect team in London saw the contribution of the TEGA project towards gender equality as primarily lying in the collection, analysis and dissemination of more and better quality data to enable the design and delivery of improved international development projects for young women in Bangladesh. The secondary contribution that the team saw the TEGA project as making towards gender equality was through 'empowering' the TEGAs themselves with new skills and the opportunity to earn an income.

Firstly, this chapter explored this latter contribution, drawing on the interviews, participant observation, and participatory workshops carried out with the TEGAs and the wider project staff, to consider the contribution made by the TEGA project towards 'closing gender gaps' through 'empowering' the TEGAs. It became clear that the project did make a significant contribution to the lives of the TEGAs throughout their involvement in the programme. For example, all of the TEGAs said that the payment they received for their data collection work was highly beneficial, enabling many of them to make purchases for themselves and contribute to household expenses. Many of the TEGAs also mentioned that the project had made them more confident, brought them greater respect from their families and communities, enabled them to challenge gender discriminatory practices such as the pressure to get married, and given them more opportunities to be mobile outside the household. Additionally, some of the TEGAs were able to stay in school due to the money they earnt through TEGA, whilst all of the TEGAs learnt new things throughout their time in the project. All of these outcomes in some way address aspects of gender inequality. Being given access, and some training in how to use, their TEGA smartphones was a further beneficial outcome mentioned by many of the TEGAs, which challenged the 'gender gap' in smartphone ownership and freedom of use in Bangladesh. Lastly, there were also a number of non-instrumental positive outcomes mentioned by the TEGAs as outcomes from their involvement in the programme, such as having fun and making new friends. These positive outcomes for the TEGAs from the TEGA project show that it did make a significant contribution to the 'closing the gender gap'.

However, this chapter also demonstrated that there were a number of factors which negate the extent to which it can be said the project successfully 'closed gender gaps' in the TEGA's lives. In particular, all of the positive outcomes discussed above were framed by the overarching precarity of the TEGA project work. The TEGA project work was inconsistent, with some networks receiving more work than others, and all of the TEGAs experiencing gaps where they were not involved in any data collection work. The Girl Effect staff in Dhaka tried to set 'home tasks' in these gaps so that the TEGAs would still have some income and also could continue developing their research skills. However, there was a limit to how often they could do this. All of the TEGAs shared that the

precarious nature of the work caused them a great deal of worry. It also weakened the closure of the 'gender gaps' described above, as from one month to the next the TEGAs did not know for sure that they would have the money for school fees, for example. The inconsistency of the project work also reduced the extent to which some of the TEGA's families and communities saw the project as a 'real job', which limited the extent to which the TEGAs could leverage their involvement in the project to negotiate for further education, or to avoid unwanted marriages. This evidence weakens the claim that the TEGA project can be said to have 'closed gender gaps'.

Furthermore, this chapter also explored findings which show that the intersectional identities and positionalities of the TEGAs, with some experiencing greater vulnerability due to their particular personal circumstances than others, meant that the precarity of the project work caused more issues for some of the TEGAs than others. For example, whilst many of the TEGAs spoke of the increase in confidence they had experienced through their involvement in the project, other TEGAs had felt less confident in comparison to the others. This was, in the case of one of the TEGAs, due to the fact that she did not feel as 'smart' as some of the other girls, as she had not been able to continue her schooling due to her family's financial situation. Another of the TEGAs had found her mobility outside of the household further restricted after her involvement in the project, as her husband and in-laws did not approve of the programme. Some of the TEGAs who came from less disadvantaged backgrounds were able to save their TEGA wages and buy their own personal smartphones that they could use freely as they wished. However, those who could not afford to do so were restricted to only using the TEGA phones, which they were told were only to be used for work purposes. These examples demonstrate that whilst for many of the TEGAs the project can be said to have made a contribution towards 'closing gender gaps' in their lives, this was not evenly experienced across the cohort.

Lastly, this first part of the chapter also discussed concerns raised by the TEGAs regarding the extent to which the project could operate as a 'springboard' for them to go on to find future work opportunities, and continue to 'close gender gaps' in the future. Some of the TEGAs raised the issue that access to well paid, secure jobs often requires the payment of bribes, which many of the TEGAs could not afford. There are also fewer jobs available to young women in rural areas in the first place, which is where the majority of the TEGAs were living. Lastly, as the project and the income it brought, only lasted two years, some of the TEGAs were worried that they would have to leave their education part way through, or not be able to afford to reach the higher levels of education needed to enable them to apply to their dream occupations. These issues that the TEGAs brought to light raise questions as to the extent that it can be said that the TEGA project 'closed gender gaps' firmly

(i.e. sustainably) enough so that they do not re-open in the years following the end of the DFAT funded project.

The second part of this chapter moved on to exploring the primary way in which the Girl Effect London team saw the TEGA project as contributing to closing the gender gap – through generating more and better data which could be used by the consortium partners to develop more effective development projects working with young women in Bangladesh. The research presented in this chapter, however, found a number of other ways that young women living in the TEGA's communities benefitted from the project. They were able to form friendships with the TEGAs through being interviewed by them, received small gifts such as soap or sanitary pads for taking part, learnt new information through being interviewed, and also found the TEGAs to be role models for girls having jobs and challenging restrictive gender norms. Yet despite these small positive implications of the TEGA project for the young women whom the TEGAs collected data from, the TEGAs shared that they, and others living in their communities, were concerned about the lack of tangible benefits arising from the data collection. Some of the project staff based both in Dhaka and London agreed, stating that it had been difficult to get clear information from the consortium partners about how the free data they had been given via the project had translated into 'impact' on the ground. These staff members felt that the consortium partners had not thought through the data collection topics thoroughly enough, due to them not having to pay for the service, and that this meant they had not ended up with usable data. However, as discussed in Chapter 4, the consortium partners I spoke to had expressed doubts about whether they could use the TEGA data to inform their programming due to concerns about the accuracy of the data, particularly about sensitive subjects, and about the TEGA data being too small-scale and qualitative for their programmatic needs. Together these findings provide further evidence that challenges the claim that the TEGA project contributed to the closing of 'gender gaps' through enabling the consortium partners to have a greater impact through 'evidence based' projects for girls in Bangladesh.

Lastly, this chapter also considered the future of the project in Bangladesh, noting that once the DFAT two-year funding had ended, iSocial had taken responsibility for the TEGAs, employing them as 'iSocial Researchers'. Girl Effect also signed an agreement to enable them to work with the TEGAs via iSocial for one off research projects. As I have not been able to return to Bangladesh since December 2019, it is unclear how this new phase of the project is manifesting for the TEGAs. The Girl Effect website shows that some of the TEGAs in Bangladesh had recorded video diaries for a project about the effects of COVID-19 on girls' lives. However, the concerns raised in this chapter about the precarity and uneven nature of the TEGA work, as well as the vulnerable circumstances of some of the TEGAs, would suggest that the outcomes for the TEGAs of this new

phase will likely be mixed. Furthermore, as the project did little to facilitate collective information sharing and organising amongst the TEGAs and their peers, or to connect them to those in positions of power, this chapter concludes that it did little to address the structural power relations in the lives of the TEGAs. As such the extent to which it can be said that the TEGA project 'closed gender gaps' and empowered the TEGAs and young women around them more broadly is constrained.

2. **What are the wider implications of an anticolonial feminist approach for gender data for development projects in theory and practice?**

The findings presented in Chapter 6, the third findings chapter, addressed this second research question, as well as providing further evidence towards Research Question 1. During my interviews with the TEGAs, some of the young women had raised the point that they, and those around them, did not have access to the data that they collected for the consortium partners and Girl Effect. This resonated with anticolonial feminist concerns about the extraction of information from communities in the majority world and the perpetuation of unequal relationships of power via such top-down mainstream international development practices. Accordingly, I decided to facilitate a participatory action workshop to discuss further with some of the TEGAs possible solutions to this issue of 'closing the loop' and ensuring their access to their own 'gender data'. However, through this process it became clear that the TEGAs involved would rather gather and share information on child marriage, the topic they felt was most important to them, than the data topics that they had been instructed to work on by Girl Effect and the consortium partners. This further echoes anticolonial feminist concerns about the misrepresentation of majority world women by Western development organisations. Through working in participation with the ten TEGAs who took part in this process in Rangpur, we collectively developed and delivered three community events on child marriage which provided the opportunity for the TEGAs to share their chosen 'gender data' with those in their local area.

Whilst a relatively small-scale and short-term participatory action project, the findings from this process provide insights as to how, in answer to Question 1, digital peer-to-peer research with young women could make a greater contribution towards closing the gender data gap and the gender gap if undertaken from an anticolonial feminist stance. As this chapter points out, participatory research approaches are in line with anticolonial feminist ethics, as it involves the participants taking the lead, rather than development 'experts', and collaborating to produce findings that directly benefit those participating as well as fairly representing them. Through enabling the TEGAs to choose the 'gender data' most important to them, and to share that data equitably with their communities rather than with external organisations, the participatory process discussed in this chapter went some way

towards addressing neocolonial and patriarchal power relations. These findings suggest, therefore that if 'gender data' projects such as TEGA take a more participatory, and thus also anticolonial and feminist, approach in the future they could make a greater contribution towards 'closing the gender gap', by 'closing gender data gaps' in a way that tangibly benefits the majority world young women involved, rather than external development 'experts' and institutions.

Yet, this chapter also explores the limitations to the extent to which it can be said that the participatory process that the TEGAs and I underwent together can be said to have addressed neocolonial and patriarchal power structures. This discussion therefore provides an answer to Research Question 2 as to what the wider implications of an anticolonial feminist approach to gender data for development projects would be both theoretically and practically. For example, this chapter points out, drawing not only on the findings from the participatory action workshops and community events but also those gathered on the TEGA project through interviews and participant observation, that development in its top-down, mainstream form is antithetical to anticolonial feminism. The findings explored in Chapters 4 and 5 demonstrated the ways in which the TEGA project, a short-term, Western-led intervention, furthered neocolonial and patriarchal power relations whilst simultaneously attempting to challenge them. In summary, these showed how the 'gender data' that the TEGA project collected did more to palpably benefit the international development organisations and professionals taking part in the long-term than it did the majority world young women who were involved. On reflecting on the participatory process that the TEGAs and I underwent together it can also be argued that the challenge of ensuring equitable power relations and research outcomes was not fully resolved in this case either. By only being able to work with some of the TEGAs in Bangladesh in this participatory way, and some of the TEGAs participating in the workshops to a greater extent than others, uneven power relations remained throughout the process. Furthermore, it cannot be denied that I benefitted greatly from this research, as it contributed findings towards my DPhil thesis. Whilst the three events that the TEGAs and I co-created and delivered on child marriage were deemed a 'success' by the TEGAs, they were too small in scope to address the structural drivers of child marriage, including poverty.

Yet this chapter concludes, drawing on these findings, that it is not 'participation' per se that is at odds with anticolonial feminism here, but 'development' in its mainstream form. The TEGA project in Bangladesh was not designed to bring about the 'radical' change to structural power relations that anticolonial feminism entails. It was short-term, top-down and depoliticised, like the majority of international development interventions led by Western NGOs in the majority world. This chapter argues that there are alternatives to 'development' that are in line with anticolonial feminist praxis, and are 'participatory' to their core, such as Dengler and Seebacher's (2019) "feminist decolonial

degrowth" approach, or 'Buen Vivir', an alternative conceptualisation of 'good change' that arose from Latin American indigenous women's movements (Harcourt, 2014). It also concludes that there are ways that 'data' could play a useful role in these anticolonial feminist alternatives, particularly as part of 'agonistic data practices' whereby data can play an affective, motivational role in collective organising against neocolonial and patriarchal power structures. As such, this chapter answers Research Question 2 by showing that the wider implications of an anticolonial feminist approach for gender data for development projects are that it entails a complete re-envisioning, both theoretically and practically, of what is meant by 'development', so that it becomes a grassroots, majority world women-led, political movement for change, which data can be a part of, but not the singular solution to.

From the many findings of this thesis, alongside answers to the guiding research questions two overarching conclusions can be drawn:

7.4 Overarching Conclusions

Efforts to 'close the gender data gap' are not exemplary of a 'gender data revolution', but instead constitute, and perpetuate, global hierarchies of power

The empirical participant observation and interview data that I gathered on the TEGA project over six months of fieldwork in Bangladesh demonstrated the ways in which the programme fell short of its claims to 'close the gender data gap' and the 'gender gap'. Viewing these empirical findings through an anticolonial feminist lens, as elucidated in findings Chapters 4 and 5, enabled this thesis to then situate the individual strengths and limitations of this project historically and contextually within a long history of technocentric interventions by the West into the lives of people in the majority world. As such, the challenges that the TEGA project faced in effectively 'closing the gender data gap' and also the 'gender gap' are not isolated incidents attributable to Girl Effect alone, but are instead symptomatic of broader mainstream development discourses whose origins stretch back as far as the European Enlightenment. Seen through anticolonial feminist eyes the 'gender data' development discourse that the gap in equality between the sexes will be overcome through mainstream Western institutions gathering, analysing and acting upon digital information on women and girls in the majority world is one of many "gender myths … galvanizing and inspiring feminists to undertake the hard slog of change" (Cornwall et al., 2007: p.5) at best, and technodeterministic, neocolonial and patriarchal at worst. Bringing about a more equitable future will not happen due to digital data collection alone, and certainly not within the inherently hierarchical model of 'development' that continues to see the West implementing top-down, instrumentalist projects in

the majority world. The current contribution of digital peer-to-peer research with young women towards closing the gender data gap and gender gap within mainstream development programmes such as TEGA can therefore currently be concluded to be limited at present.

Taking an anticolonial feminist approach to gender data both in theory and practice could better close gender data and gender gaps, but will require a radical re-envisioning of data for 'development' and global power relations

Chapters 4 and 5 show the limitations of the mainstream gender data for development discourse and approach which posits that we need to collect data on women and girls in the first instance, and then secondarily empower girls and women with that data. An anticolonial feminist approach to data would flip this mainstream gender data approach on its head, starting instead with the aim of challenging hierarchies of power as the central aim, and collecting data becoming the secondary concern that supports the achievement of the former and foremost goal. Working collaboratively *with* rather than *on* the TEGAs to address the need for closing data gaps at the grassroots level that they had identified took some steps towards realising anticolonial feminist data for development in practice. The findings gathered during this participatory process, discussed in Chapter 6, demonstrate that foregrounding the agency and opinions of the young women in an anticolonial feminist manner does go further towards closing gender gaps and data gaps in ways that mainstream gender data projects, such as TEGA, have overlooked. These findings suggest that the contribution of digital peer-to-peer research with young women towards closing the gender data gap and the gender gap can be made greater by taking an anticolonial feminist approach that begins with challenging hierarchies of power through participation, rather than a mainstream top-down development approach that further entrenches existing neocolonial imbalances of power.

However, the findings from the participatory process also revealed that the extent to which the collaborative workshops and community events could fully realise the transformative ambitions of anticolonial feminism was limited, as it was only a short, small-scale attempt at participation within a larger mainstream development initiative and the confines of my DPhil research. As such it could not adequately address the full extent of neocolonial and gendered power relations, or the ways in which mainstream gender data for development programmes, and academic research, perpetuate these hierarchies of power. Chapter 6 goes into further detail regarding these limitations of the participatory anticolonial feminist phase of the research and situates them in the wider context of international development, global power relations and the rising usage of data for development technologies. In doing this, Chapter 6, and this thesis, makes the argument that whilst an anticolonial feminist approach to designing and delivering gender data projects in development would better

close gender data and gender gaps than current mainstream approaches, fully closing gaps in gendered inequality and data requires structural transformation. Drawing on anticolonial feminist theorists' writing about alternatives to development, I argue that this transformation would entail the re-envisioning of 'data for development' in theory and practice, so that it is no longer top-down and instrumentalist, but instead a grassroots movement for positive change by and for communities in the majority world. Western institutions hoping to bring 'good change' through data should support the myriad alternatives to international development that are being generated at the grassroots by majority world women and their communities. These alternatives are political, and seek to dismantle the global political and economic systems that continue to make the West rich at the expense of the rest of the world, creating the conditions that 'data for development' seeks to 'fix' in the first place. As Chapter 6 discusses, therefore, it is this transformation of structural power relations that will truly bring about equality for women and girls in the majority world, and 'data' or information can be part of that process. But it must be emphasised that as "the root of gender inequality isn't lack of data about women – it's a lack of power in women's hands" (Cookson and Fuentes, 2019: n.p.), data alone will never be enough.

7.5 Recommendations for future research, policy and practice

Whilst this thesis has made contributions in generating new empirical data on, and theoretical insights into, gender data for development, it was limited in its scope. The TEGA project in Bangladesh is only one of many gender data for development projects, which are taking place across the world. However, this provides fruitful ground for future research, policy and practice to extend this preliminary study.

Firstly, there is a wide scope for future research on gender data for development. 'Data for development' comes in many forms, ranging from 'big data' to 'small data', from more community-driven data approaches to top-down data extraction. However, as there is little empirical study of gender data for development projects, we know relatively little about this broad spectrum. It would be insightful to compare and contrast the findings from this research with those derived from studies of other gender data projects, to be able to draw wider patterns and identify common threads and themes. More specifically, it would be good to see further research on:

- Additional gender data for development projects that are framed around 'closing the gender data gap' in order to 'close the gender gap' in different majority world contexts

- Gender data for development projects that use different types of 'data technologies' – e.g. 'big data' projects using social media user data etc.

- Gender data for development projects that are led by different types of organisations outside of Western NGOs, such as governments, community-based organisations, corporations etc.

- Data for development projects that do not have a specific 'gender' focus, in order to understand the ways in which neocolonial power relations shape programmes that are not just about 'women'

Whilst holding current examples of the 'gender data revolution' in development to account is key, as identified in Chapter 6, there is hope going forwards for data to be part of a radical contestation of neocolonial patriarchy. This is an avenue that researchers, polic-makers and practitioners can seek to expand upon and explore going forwards. This thesis took a participatory action approach to investigating an already existent gender data for development project. As a result, it was limited as to how much radical 'action' it could bring about in an already established project structure. Yet perhaps PAR projects could be established that build participatory data projects from the bottom up, which would better embody anticolonial feminist praxis. Researchers, policy-makers and practitioners seeking to bring about an anticolonial and feminist world with, not through, data can work together to make this a reality in the years ahead. Here are some specific recommendations towards this ambition:

- Researchers, policy-makers and practitioners should start from the premise of seeking to close 'gender gaps', or bring about greater equality relating to gender and other aspects of identity, rather than from the notion of closing 'data gaps'. The latter presupposes a technocentric link between data and social change which should be questioned

- Participatory action research is a methodological approach that could bring researchers, policy-makers, practitioners, and participants together to work collaboratively towards better

understanding how data might play a useful role in addressing neocolonial and patriarchal power structures, and then bring this to fruition collectively

- Participatory action research should be entered into over the longest time period possible, in order to bring about more sustainable, iterative action and transformation

- Researchers, policy-makers and practitioners should also seek to work in participation with those in the majority world, particularly women, who are already doing the work of bringing about an anticolonial feminist world. Data may, or may not, be an appropriate aspect of these collaborations – addressing power structures in whichever way is most effective and equitable is what matters

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Appendicies

Appendix A: Interview Schedules

<u>**TEGA Interview Schedule**</u>

Intro

1. What is your name?
2. How old are you?
3. How long have you been a TEGA for?
4. Who do you live with?
5. What do you do alongside being a TEGA (school, work, mother, wife etc.)

TEGA experience

1. What motivated you to apply to be a TEGA?
2. What do you think the purpose of TEGA is?
3. What was the training process like?
4. Which topics have you carried out research on for TEGA?

   a) Which ones have you most enjoyed and why?
   b) Which ones have you least enjoyed and why?

5. Are there any other topics you think that research should be done on in your community?
6. What are the benefits of being a TEGA?
7. What are the challenges of being a TEGA?
8. Has the TEGA programme brought about change? If so, what change and for whom (you, your family, your community)?
9. In your opinion, how could the TEGA programme be improved?

Community perceptions

1. What does your family think about TEGA?
2. What do you friends think about TEGA?
3. What does your community think about TEGA?
4. Do men and boys perceive the programme differently to women and girls?
5. How do the young women you interview feel about the programme?

Technology access

1. Is the TEGA phone your first phone?

   a) If yes, what is it like having a phone for the first time? What can you do now that you couldn't do before? (i.e. talk to friends, access information, take pictures, social media)
   b) If no, how long have you had a phone? What sorts of activities do you use your phone for?

2. Are there other forms of technology that use on a regular basis? (TV/radio/computer etc.)
3. What is the perception of girls and phones in your community? Has TEGA changed these perceptions?

Money

1. What do you do with the money that you earn from the TEGA programme? (i.e. do you save it, give to family, spend it etc.)

Future

1. How long do you hope to be a TEGA for?
2. What would you like to do with your life in the future after the TEGA programme?
3. What are the barriers to you reaching your future goals?
4. Do you think TEGA will help you to overcome those barriers?
5. What could Girl Effect do to help you achieve your future goals?

Staff Interview Schedule

1. What is your name?
2. What is your job role on the TEGA project?
3. How long have you worked on the TEGA project?

TEGA

1. What motivated you to apply for the job with TEGA? Didn't know that much about technology part, but liked?
2. What do you think the purpose of TEGA is?
3. What has/have been your favourite research projects so far? Why?
4. Are there any other topics that you think need to be researched?
5. What aspects of the TEGA programme in Bangladesh have been most successful, in your opinion?
6. What aspects of the TEGA programme in Bangladesh have worked less well, in your opinion?
7. Are there any particular challenges that the TEGA programme or the TEGA team in Bangladesh has faced?
8. Has the TEGA programme brought about change? If so, what change and for whom?
9. Looking back on the TEGA programme so far, how do you think it could be improved going forward?

Appendix B: Information Letter (TEGA version) and Consent Form

<u>Participant Information Letter for TEGAs</u>

I am writing this letter to invite you to take part in my research study of the Girl Effect TEGA project in Bangladesh. Before consenting to participate in the study please take the time to read the following information and to discuss it with others, for example your fellow TEGAs or the project co-ordinators, if you would like. If you have any further questions or need more information, please do not hesitate to ask.

Background, Aim and Value
I would like to understand how Girl Effect's TEGA project uses technology to develop young women's empowerment. Lots of development projects teach young women how to use technology, and lots of them also say that this is empowering for the young women involved. However, there isn't much academic research that shows how this process happens, if at all, and so it is difficult to say whether technology really does empower young women.
My research will explore whether TEGA supports the development of young women's empowerment, and will also come up with suggestions for how the TEGA programme could be improved to better support young women's empowerment in the future.

Participation in the Study

In order to achieve the above aims I would like the Bangladeshi TEGAs, including yourself, to take part in a semi-structured interview.

This interview will give you the opportunity to share your thoughts and opinions on being a part of the TEGA programme. They will be audio-recorded, and transcribed. I will not share these transcriptions or recordings with anyone else. The interviews will last no longer than an hour.

Throughout the programme I will also be taking observational notes of the project, including refresher trainings etc.

Ethical Concerns

If you are able to take part in the study you will need to sign the consent form below. As outlined in this form, the interviews will be recorded, transcribed and stored in a password-secured file to ensure confidentiality. This data will be deleted after a maximum of five years. The data collected will be analysed and used by me as part of my doctoral thesis and other pieces of writing. All personally identifiable information, such as your name, will be removed from any published material.
Participation in this project is voluntary, and you can withdraw from the study without specifying a reason at any time.

The study has been reviewed by, and obtained ethical approval from, the University of Oxford Central University Research Ethics Committee. If you wish to raise any concerns or make a formal complaint, please contact the committee (ethics@socsci.ox.ac.uk; +44 (0) 1865 614871).

If you would like more information on the research then please contact me anytime. I look forward to hearing from you at your earliest convenience.

Yours sincerely,

Isobel Talks, Doctoral Candidate in the Learning and New Technologies Group, Department of Education

Isobel.talks@st-hughs.ox.ac.uk (+44) 7376 109960

Department of Education 15 Norham Gardens Oxford, OX2 6PY
Isobel Talks, Isobel.talks@st-hughs.ox.ac.uk, +88 07376 109960

Participant Consent Form
CUREC Approval Reference: ED-CIA-19-053

Exploring how a critical feminist understanding of empowerment can improve ICT4D theory and practice

Purpose of study: To understand the ways TEGA mediates young women's empowerment in Bangladesh

Please initial each box

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without any adverse consequences or penalty

3. I understand that the research data collected during the study may be looked at by designated individuals (once anonymised) from the University of Oxford where it is relevant to my taking part in this study. I give my permission for these individuals to access my data.

4. I understand that this project has been reviewed by, and received ethics clearance through, the Oxford Central University Research Ethics Committee

5. I understand who will have access to the personal data provided, how the data will be stored and what will happen to the data at the end of the project

6. I understand how this research will be written up and published

7. I understand how to raise a concern or make a complaint

8. I consent to being audio recorded (for interviews and focus groups only)

9. I agree to take part in the above study

10. I agree for my personal data to be kept in a secure database for the purpose of contacting me about future studies

_____   _____   _____

Participant   Date   Signature

Appendix C: Contractual Agreement with Girl Effect

RESEARCH SERVICES

2ⁿᵈ Floor, Robert Hooke Building, Parks Road
Oxford OX1 3PR
Tel: +44(0)1865 289897
eve.henshaw@admin.ox.ac.uk

Girl Effect
Ingeni Building
17 Broadwick Street
London W1F 0DE

Oxford Ref:
R59726/CN001

Dear Sir/Madam,

Letter of Agreement
Collaboration with Isobel Talks and related access to Girl Effect TEGA Content Hub

Girl Effect, an independent non-profit organization with the goal of ending poverty globally ("Girl Effect" or "We") are delighted that Isobel Talks, a DPhil student (the "Student") at the University of Oxford's Department of Education (the "University") has chosen to look at the Girl Effect Technology Enabled Girl Ambassadors (TEGA) methodology for her DPhil project on the empowerment of TEGA's through technology (the "Project") and are happy to collaborate on and help facilitate the Student's research. This letter of agreement (the "Agreement") outlines the terms associated with the Student's access to Girl Effect resources and particularly the TEGA content hub described below (the "Content Hub") for the purposes of the Project. We acknowledge and understand that the purpose of the Student undertaking the Project is to conduct research as part of her DPhil studies at the University and submit a related thesis (the "Thesis") for examination in accordance with the University's regulations governing post-graduate study in fulfilment of the requirements of a higher degree of the University. We further acknowledge that the research undertaken as part of the Project is also intended to lead to academic publications.

We also understand that the Project has received ethical approval from the University's research ethics committee as set out in the University's policy on undertaking research involving human participants and personal data.

This Agreement sets out the terms on which We will grant access to the Content Hub to the Student. Please countersign, date and return a copy of the Agreement to the key TEGA contact outlined below.

The Content Hub and all the data contained therein is proprietary to Girl Effect and is strictly confidential ("Confidential Data"). The Student's access will be limited to only the data sets (tasks) that the Student will be researching as part of the Project, but We will otherwise allow the Student to view data from all TEGA operational countries and view and download reports, csv files, pictures, video and audio files for each task to which the Student has access.

Access to the Content Hub is only permitted on the following terms:

- The Student must ensure that she only downloads data that is strictly necessary for the purpose of the Project and that it is securely deleted and removed from her computer once she no longer needs it;
- The Student is not permitted to share any data from the Content Hub with anyone else other than her supervisors Professor Niall Winters and Dr Anne Geniets (the "Student's Supervisors") – the Student's Supervisors may not use the data themselves and must also keep such data confidential;
- The Student must also comply with any additional terms and the privacy policy (to the extent that they do not conflict with the terms of this Agreement) published within the Content Hub itself;
- In addition to Content Hub data, during the course of undertaking the Project, the Student may have access to other confidential and business sensitive documents and information of Girl Effect, including (but not limited to) such things internal TEGA plans and conversations ("Confidential Information"). We will notify the Student when any such information is being disclosed and that it must be kept strictly confidential and shall not be disclosed to anyone outside of Girl Effect.

The University is responsible for ensuring that the Student (and the Student's Supervisors where applicable) appropriately protects the security, privacy and confidentiality of any TEGA data and other Confidential Information. In the event of any loss of data or any suspected breach of these terms, please ensure you notify us as a matter of urgency (and at least within 24hrs of becoming aware). The University and Girl Effect will also comply with the provisions set out in Annex 1 of this Agreement.

We understand that the results of the research undertaken as part of the Project will be used by the Student to prepare her Thesis which will need to be submitted, examined and a copy placed in the University's Bodleian library in accordance with the University's regulations (which include provision for the Thesis to be placed on restrictive access) in order for the Student to receive her DPhil. We agree and confirm that nothing in this Agreement will prevent or hinder this or the Thesis submission process and timeline, but we would like the opportunity to review the Thesis prior to submission for examination to check that it does not contain any Confidential Data, Confidential Information or personally identifiable Information (unless appropriate consent has been given). Where our review identifies any issues, we will work with the Student and where appropriate the Student's Supervisors in good faith and in a timely fashion to remove or disguise any Confidential Information, Confidential Data or personally identifiable information to our reasonable satisfaction whilst ensuring that the academic integrity of the Thesis is not undermined. Similarly, we would like the opportunity to review any other academic publications prior to submission for publication to check for Confidential Data, Information etc. and so the University, through the Student, undertakes to liaise with Girl Effect in this regard and also to agree on an appropriate form of acknowledgement of the support provided by Girl Effect.

We acknowledge that the Student may wish to use quotes from interviews performed as part of the Project and/or from the Content Hub in her Thesis and possibly in other publications and that these quotes and indeed any other TEGA data will be fully anonymised and will contain no personally identifiable information (e.g. no names, faces, locations of the TEGAs and their respondents) unless explicit consent has been given.

Upon the completion of the Project and submission of the Student's Thesis, all data obtained from the Content Hub must be deleted from any device from which the Student accessed it.

3

We agree that this Agreement replaces any previous agreements related to the Student's access to the Content Hub.

Unless We inform you otherwise, your primary TEGA contact shall be Ellie Taylor ellie.taylor@girleffect.org please direct all queries to Ellie and we will be sure to get back to you as soon as We can.

We wish the Student all the best with her research!

Yours faithfully,

Laura Scanlon
Senior Director,TEGA & Regional Director, Asia & US
For and on behalf of Girl Effect

Agreed and accepted, for and on behalf of The University of Oxford

Signature:

Name: Ms Eve Henshaw

Title: Senior Research Contracts Manager

Date: 19 | 10 / 2018

Read and understood by the Student

Signed: Subel Talks

Dated: 15.10.18

Acknowledged by the Student's Supervisors

Signed:

Name: Dr Anne Geniets

Signed:

Name: Professor Niall Winters

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