



Internet Disconnection as a Risk to Cross-Border Human Rights

Zinnat Sultana
S.M.R. Law College
Jashore, Bangladesh
zinnat1409@gmail.com

Miss. Rokeya Akter
CSE
Khwaja Yunus Ali University
Enayetpur, Chouhali, Sirajganj - 6751
Bangladesh
rokeya.cse@kyau.edu.bd

Tanveer Ehsanur Rahman
Intercloud Limited
Dhaka, Bangladesh
tanveerer@gmail.com

Hasan Shahid Ferdous
School of Computing and Information
Systems
University of Melbourne
Melbourne, Victoria, Australia
hasan.ferdous@unimelb.edu.au

Teresa Wulandari
The University of Melbourne
Melbourne, Victoria, Australia
teresa.wulandari@unimelb.edu.au

M Ashraful Amin
Center for Computational and Data
Sciences
Independent University, Bangladesh
Dhaka, Bangladesh
aminmdashraful@iub.edu.bd

Syed Ishtiaque Ahmed
Computer Science
University of Toronto
Toronto, Ontario, Canada
ishtiaque@cs.toronto.edu

Sharifa Sultana
Computer Science
University of Illinois
Urbana-Champaign
Champaign, Illinois, USA
sharifas@illinois.edu

Abstract

One of the biggest movements organized by Gen-Z is the July-August 2024 quota reformation movement in Bangladesh. During this movement, the government in power of Bangladesh shut down the internet nationwide for ten consecutive days to suppress the voices of people and disconnect them from the rest of the world. Our ongoing project investigates the movement and analyzes this crisis. We are currently conducting interviews with Bangladeshi people living outside of Bangladesh to understand the trouble they faced due to the internet shutdown and found that their human rights were violated in multiple ways. The participants informed us about how propaganda spread, which was impossible to verify due to the internet shutdown, resulting in more chaos and confusion during that time and possibly leading to more damage to the nation and its resources. We present the findings and discuss possible directions for HCI.

CCS Concepts

• **Human-centered computing** → **Web-based interaction**; **Social networking sites**.

Keywords

ICTD, Ethics, Bangladesh, Immigrants, Justice, Cross-border, Human Rights, July Uprising

ACM Reference Format:

Zinnat Sultana, Miss. Rokeya Akter, Tanveer Ehsanur Rahman, Hasan Shahid Ferdous, Teresa Wulandari, M Ashraful Amin, Syed Ishtiaque Ahmed, and Sharifa Sultana. 2025. Internet Disconnection as a Risk to Cross-Border Human Rights. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*, April 26–May 01, 2025, Yokohama, Japan. ACM, New York, NY, USA, 7 pages. <https://doi.org/10.1145/3706599.3720245>

1 Introduction

On July 17, 2024, the government of Bangladesh shut down mobile internet. State Minister for ICT Zunaid Ahmed Palak said it was “in light of the current crisis in the country and to stop the spread of fake news on social media” [14, 33]. The next day, the National Data Center building was torched [29, 33]. The officials of the Internet Service Providers Association of Bangladesh issued a statement saying the fire might have cut 30-40 percent of the bandwidth supply, leaving some users disconnected, many of whom had slow internet access [3, 13]. However, officials of internet service providers said this would disrupt partial internet traffic [3, 13]. An hour later, the entire Bangladesh was without internet [3]. This included broadband service, voice-over-internet protocol services, and mobile data services. All the internet and online data-related services were completely dysfunctional, including Bank ATM centers, mobile money applications, credit-card transactions, government and non-government online services, and passport and visa appointments, and processing services, among others [15]. The whole country had to use basic phone calls to communicate within the country and abroad. After a few days, some mobile money applications circulated their complex instructions on television about how to use their services using text messages. The internet did not come back until July 28, 2024 [33]. Multiple authors in this paper were in Bangladesh at that time, experiencing the whole situation,

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

CHI EA '25, Yokohama, Japan

© 2025 Copyright held by the owner/author(s).

ACM ISBN 979-8-4007-1395-8/25/04

<https://doi.org/10.1145/3706599.3720245>

while another group of Bangladeshi co-authors were completely disconnected from their ties in Bangladesh.

News outlets and the authors' lived experience suggest that the "current crisis" in the State Minister's statement mentioned above referred to the then ongoing movement about quota reformation demand by students [12]. The students across the country coordinated together through social media groups to run the protest. Soon, the law enforcement turned aggressive against the protesters by mass firing at the students protesting on the street, raiding private hostels and arresting students without any warrant, and harassing students and other people on the streets by forcefully unlocking and checking call logs and social media activities on their phones. All of these led the students' quota reformation protest to turn into a protest against the government, demanding the resignation of the then Prime Minister. Soon after the prime minister resigned on August 5, 2024, it was discovered that nationwide broadband internet and mobile data were shut down on the government's order [33, 49].

HCI research has studied the impact of limited and no access to the internet [7, 16, 21–24, 26, 27, 35, 37–40, 43–45, 52, 53]. Researchers have also studied internet and information and communication technology (ICT) nonuse and mediated use [4, 5, 22, 30, 34]. Previous research on internet shutdowns in Bangladesh has shown that people suffer from educational and daily life disruptions in such internet blackout situations [6]. Such work has brought insight into the national economic damage during such internet blackouts. However, one country's internet ecosystem is not stand-alone. Instead, they are part of a much bigger and broader infrastructure. They are connected to the rest of the world for trade, information sharing, and remote maintenance work. Therefore, disconnecting one country's people by shutting down their internet not only blocks their citizens and residents from accessing information and connectivity but also causes damage to people who have personal, financial, and professional ties to that country, even when they have internet.

In this work, we bring insights into how cross-border rights are violated by one country's internet disconnection. In this regard, we are currently interviewing Bangladeshi people living outside of the country ($n=14$, nine male, five female, age range: 23–39 yrs). In the interviews, we ask them how they found out about the internet shutdown, which kind of workaround they sought, and what types of damages they experienced even when they had access to the internet in their areas. Our research looks to address the following research questions:

RQ1: What type of civil and political rights of Bangladeshi immigrants abroad were violated due to the internet shutdown in the country for ten consecutive days?

RQ2: How their economic, educational, professional, and other types of damages caused due to the internet shutdown in the country for ten consecutive days?

Our initial findings suggest that Bangladeshi immigrants abroad felt violated as they could rarely communicate with their family and close ones in the country and felt their raised voice for the protest might cause security risks to their family and close ones in the country. Several participants also informed us that their collaborative projects were hampered and they faced economic damage as

a part of their team members work remotely from Bangladesh. The participants also informed us that in such and other cases when they feel their rights are violated by their homeland, they did not have much consciousness about who to go to seek justice.

While our work is still ongoing, we believe this late-breaking work still contributes to HCI and social computing research by engaging with ongoing HCI discussions on immigrants' rights and access to information. We claim two contributions: we argue that when immigrants cross the border, they still leave some of their ties and connections in their home country. Therefore, both home and host countries are accountable for protecting their rights, including their voice and access to information. Second, cross-border data-driven policies and infrastructures should be more empathetic to people who are already vulnerable.

2 Literature Review

The concept of "Access to ICT" within the field of computer science has been subject to diverse interpretations. Drawing upon the established definition of "physical access" in computer security literature, which entails direct, on-site interaction with computer and network hardware [19]. While physical access can be reconceptualized as direct, on-site interaction with computational resources, the notion of "Access to ICT" in developing countries is more complex. It encompasses not only physical accessibility but also ancillary factors such as the unit cost of devices and services, their availability and accessibility, and the associated maintenance expenses of the underlying infrastructure [2, 6, 8, 20, 31, 53]. Individual users' literacy, inexperience, cognitive difficulties, and gaps in user-interface understanding were reported as crucial factors in access [10, 11, 27]. Additionally, researchers have shown that users' individual social standing, familial social standing, community relationship, and interaction with the state present additional difficulties in the context of dependent use and non-use [26, 36]. Such factors result in mediated, supervised, and shared use of mobile phones, social media accounts, and e-commerce applications [1, 8, 9, 24, 27, 30, 34].

The field of Human-Computer Interaction (HCI) has extensively investigated the consequences of limited or nonexistent internet access, including the phenomenon of internet and information and communication technology (ICT) nonuse [4, 5, 22, 30, 34]. In the Global South, low-literate and low-numerate adult users often surrender privacy concerns to the mediators of technology [1, 43]. Thus, mediated, supervised, and shared use of ICT in the Global South has remained a core interest in HCI4D and social computing research [17, 18, 25, 32, 50]. Particularly, a group of researchers have investigated access to the internet and social media in Bangladesh from the angles of technology use, non-use, mediated use, and abuse and reported how these empower, and in some cases depower, marginalized populations in the rural and urban areas [38–47, 48]. Building on this chain of literature, we have investigated how the questions of access to information and the internet complicate the information ecosystem and cross-border human-rights space through our ongoing research on the recent internet shutdown in Bangladesh.

Access to and restriction to information and internet infrastructure has remained one of the major interests in HCI research, especially in the context of low and middle-income countries (LMICs,

henceforth) in the Global South. Previous research on internet shutdowns in the Global has highlighted the significant disruptions to education and daily life that individuals experience during such blackouts [6, 28, 51]. These studies have also shed light on the substantial economic repercussions of such events at the national level. However, it is crucial to recognize that a country's internet ecosystem is not isolated. Rather, it is an integral component of a larger, interconnected global infrastructure. This interconnectedness facilitates trade, information exchange, and remote maintenance activities. Consequently, disconnecting a nation's population through internet shutdowns not only restricts their access to information and connectivity but also adversely impacts individuals with personal, financial, or professional ties to that country, even if they reside in regions with uninterrupted internet access. Our work extends this set of knowledge and aims to contribute to more immigrant-friendly internet and information infrastructure worldwide.

3 Methods and Data

All, except one, of the researchers associated with this project are Bangladeshi living in and outside of Bangladesh and have been following the quota reformation movement for the past few years. However, we started this interview study as a formal research project in July 2024, which is still ongoing. This research project went through the authors' university's ethical review. We research out to the participants through emails and our social networks. We mentioned that we wanted to learn about the experiences of the people living outside of Bangladesh and how they felt violated due to this internet shutdown. We explained the agendas of our project in our call for participation and sought their interest in participating in our project. Upon their agreeing to participate, we scheduled an interview, explained the research to them again, and requested oral consent. In this ongoing work, we have interviewed 14 participants (nine male, five female, age range: 23-39 yrs) so far. The interviews were conducted in Bengali, as all the participants were of Bangladeshi origin.

We conducted one-on-one semi-structured interviews with the participants online over convenient platforms preferred by the participants, such as Zoom, Whatsapp, etc. Upon starting the interview sessions, we thanked the participants for volunteering to help in this research and ensured the anonymity of the interview participation process. Then, we sought their oral consent to proceed with the interview questions. Each interview lasted approximately thirty minutes. We asked them about the country and cities where they were currently living, who they contacted in Bangladesh using which method, how frequently such communication happened, etc. Additionally, we asked them about their knowledge of the movement and the then government's internet policies and practices, about the shutdown through the ten consecutive days, and how they and their contacts in Bangladesh were affected. This discussion helped us engage with them in deeper conversations and understand the situation better. We took detailed notes of all the interviews and audio-recorded several of them with the participants' permission.

We collected our data over July and August 2024. So far, we have 2.5 hours of audio recording, which we have translated and transcribed for thematic analysis. While the data collection and analysis are still ongoing, we found several emerging themes are significant. In the following section, we present the emerging themes.

4 Findings

The current stack of our findings shows that Bangladeshi immigrants living abroad felt a violation of their human rights in several ways. We broadly categorize them under security and privacy concerns, economic damage, violation of the right to education and civil life, and risk of degradation of trustworthiness in the global community. Additionally, they participants also found themselves depowered in the host country as they did not know who to consult and complain to when a phenomenon in their home country violated their rights. We discuss our findings below.

4.1 Security and Privacy Concerns

Bangladeshi residents' internet use has been under surveillance and monitoring for many years. In 2018, the government passed the Digital Security Act 2018 (DSA), which faced significant criticism for its potential to undermine fundamental rights. Accusations include its use to suppress dissent, curtail media freedom, and violate human rights. Conversely, it has also been criticized for its shortcomings in safeguarding online safety, digital security, and personal data privacy. In light of these concerns, the government introduced the Cyber Security Act 2023, which was approved by the Cabinet in August 2023. A comparative analysis conducted by Transparency International Bangladesh (TIB) found that the draft CSA is essentially a rebranded version of the Digital Services Act (DSA) 2018, with only minor modifications to the penalties. Despite these superficial changes, the draft CSA retains the core provisions of the DSA that have been criticized for their potential to restrict freedom of speech, dissent, thought, conscience, the press, and independent journalism. Note that the National Telecommunication Monitoring Center (NTMC), established in 2008, is a national-level intelligence agency in Bangladesh responsible for monitoring, collecting, and recording information and communication data. In January 2023, they purchased an Integrated Lawful Interception System from Israel, which can invade users' privacy by accessing Facebook and WhatsApp encrypted messages, phone call records, text messages, Facebook and YouTube activities, etc. All information in this subsection is public information and is known to the commoners in Bangladesh. Therefore, with the internet shutdown in the country, the Bangladeshi immigrants living abroad felt their freedom of voice and participation were still restricted even when they were in a different country.

4.1.1 Restricted Freedom of Voice. More than five participants told us that they were worried that their communication through telephone could have been monitored, and therefore, they often were scared to practice their freedom to raise their voices against the injustice they noticed happening in the country. During the time of the internet shutdown, some participants were worried that their family members' phones in Bangladesh were monitored and the participants practicing free speech might cause harm to their families, as we quote P5,

"It is known that the government was tracing calls and text messages; this is legalized in the country. Everybody knows that the Bangladeshi government has purchased such technologies and mechanisms, and I was very scared to raise my voice even from abroad, as I was in close contact with my family and I was scared that they were tapping my family members' phones and might cause harm to them to get me. When the country's internet shut down, we had to talk over phone calls, and thus, tracing and monitoring our calls became even easier for them. And my worry is not illegitimate, as previously terrorists in the country tapped people's phones and murdered them, and now such technologies are even legal in the country.", (P5, Female, 24 yrs)

Similarly, another four participants told us they were worried about talking freely when communicating with their friends and family members in Bangladesh over phone calls. This indicates they felt threatened because of their possible practice of freedom of voice, and hence, this represents a scenario of restricted freedom of voice.

4.1.2 Restricted Freedom of Participation. At least three participants told us that they were also worried that when the news of their participation in and support of the movement in Bangladesh gets circulated in Bangladesh, they and their families might be at risk due to this monitoring. They told us they had no problem supporting through making banners and donating money; but they intentionally restricted from posting on social media and being part of group photos of support events. We quote P6,

"I study in the USA, but my family is still there. My elder brother is a farmer in the village. Therefore, even when I helped coordinate the voice of Bangladeshis living abroad, I was scared to be part of the photos they were taking. I was particularly scared because people came and threatened a family in the next village of ours, whose son was protesting for Bangladesh in Germany. The internet shutdown forced me to call my parents over the phone, which increased my fear, and I decided to remain less visible in the activities. I feel bad, though.", (P6, Female, 28 yrs)

Note that as a citizen of Bangladesh, regardless of where they live, it is their right to be able to participate in such a movement. However, the quote above and other participants' experience of the July event indicate that they felt threatened because of their possible practice of freedom of participation, and hence, this represents a scenario of restricted freedom of participation.

4.2 Economic Damage

4.2.1 Expenses in Looking for Alternative Communication Media. All the participants told us that as soon as the internet shutdown happened, they panicked and tried to find alternative ways to communicate with their families in Bangladesh. Initially, some did not realize broadband internet was blocked, and VoIP-based services and data connections were also turned off in the country. Soon, they discovered through iterations and based on other Bangladeshi

immigrant friends' suggestions; however, this caused monetary loss for them. As we quote P11,

"I was extremely stressed as I could not call my mother on messenger, which we generally use. The previous night, my mother told me that the Bangladeshi police had arrested students from private hostels in the next street without a warrant. Initially, I tried Viber Out and RebTel to call my mother, but failed. I took paid services and still failed. Other Bangladeshi students living in my area experienced the same. Maybe all the voice-over-internet protocols (VoIPs) were blocked. Finally, the Skype paid version worked, but we could only hear for 15-20 seconds, and then the call dropped. My wife and I together spent more than USD 60 in one day to find a functioning channel; this much money is worth our weekly grocery.", (P11, Male, 32 yrs)

Some of our participants informed us that they had to spend even USD 80-100 before they could find a functioning way to communicate with family where they could talk in minimally reasonable audio resolution for 15-30 seconds.

4.2.2 Projects Missing Deadlines. Three participants told us that they were PhD students working on projects of million dollar funding. Due to the situation in their home country, they were upset and could not make much progress. One of them told us that their group had another research assistant who was in Bangladesh at that time and could not finish their due tasks, which caused them to miss the deadline. The participants thought this might be interpreted as professional damage, as P3 explained to us,

"Our project, worth USD 1.5 million, was under threat, as my other Bangladeshi teammate was in Bangladesh then. The plan was that he would be working remotely over the summer during his travel. However, Bangladesh was experiencing an internet shutdown, and he could not even inform us that it would be impossible for him to finish his job or when he would be available again for work. Nobody in the group blamed him, as I could explain the situation in the team meeting, but we missed a major deadline.", (P3, female, 29 yrs)

All three participants were worried that their being less productive for more than a week might result into troubles in their academics as their programs were highly competitive, as they told us.

4.2.3 Paying for Group Member's Trip Abroad to Finish Tasks. Two participants told us they had their projects running with team members in Bangladesh. As soon as the internet was shut down, they had a hunch that it might take a long time to reinstate the connectivity, which would hamper their progress. Therefore, they decided to send the team members to nearby countries where they could finish the project. As P10 explained their situation to us,

"I am in London but run my team in Bangladesh. As soon I heard about the internet shutdown, I could not wait for any more seconds because my clients would not wait for me and hand over this USD 75K project to someone else. I contacted my group, asked which ones had valid passports, and asked them to pack their bags

to fly out to Nepal, as it had the internet and allowed visas on arrival for Bangladeshi people. Hotel for ten days, airfare, and everything together cost me around USD 7000, but I was able to save my project and my reputation. I heard many other such people who run their teams in the country could not save their projects. This is a huge loss for people like us.", (P10, Male, 36 yrs)

4.2.4 Unforeseen Health Issues not Covered by Insurance. As we mentioned above, many participants were worried that their families might be at risk during the time of the internet shutdown, and they could barely communicate with them; this caused health issues for some participants and their family members abroad. For instance, P1's wife's health deteriorated during that time, and they had to experience monetary loss; as we quote P1,

"My wife suffers from several health issues after our childbirth. However, when we found out that the internet was completely shut down in Bangladesh and the mobile phone network was absolutely crap that we could not hear her mother's voice, she had continuous panic attacks. Her physical health deteriorated, and we had to take her to the hospital. They increased the dose, and the new medicine is almost worth USD 1000, and the insurance is saying they will not cover it.", (P1, Male, 26 yrs)

Two other participants also told us that they had to start taking pills to control their blood pressure, which they never needed before and they were worried about the pill's coverage by the insurance.

4.3 Hampered Right to Education and Civil Life

Our participants also shared examples of their own and those of people they know who were hampered by the internet shutdown, namely, their educational opportunities and civil life. For example, P2 gave us his own example, where his wife missed an educational opportunity, and he missed the opportunity to live with his wife and child due to the sudden and unannounced internet shutdown. We quote P2,

"I have a two-year-old child; I left it at home when it was six months before coming to pursue my PhD. My wife was going to stand for her visa interview in July so that they could come and live with me. She was also planning to enroll in the university the following season. But due to this unrest and internet shutdown, sending her the right I-20 and her communication with the embassy and the university were all messed up, and now she is not getting to schedule her visa interview on time.", (P2, Male, 25 yrs)

Another female participant told us that her family needed the money she frequently sends at home, but due to the internet shutdown, the transaction did not happen on time, and this caused trouble for her family. As we quote her,

"My parents depend on the money I send them for their medicine. Right before the day of the internet shutdown, I sent money through a remittance service. Generally, they receive it in two days, but this time, as banks could

not run properly and disrupted the internet, my parents did not get the money and could not purchase their necessary things on time. Not only mine, millions of families in Bangladesh are dependent on remittance; they should have thought about the citizens before shutting down the internet.", (P8, Female, 27 yrs)

Three other participants told us that due to the internet shutdown, transactions in the local banks and online monetary services were hampered and caused trouble for them and their families. Two participants told us they had their project team members in Bangladesh, and their payment did not go through on time. This was an unusual case since the beginning of both of their projects.

4.4 Induced Skepticism and Risking Trustworthiness in the Global Community

Our participants informed us that during the time of the internet shutdown, the coverage of local news on local and international news media was very limited. This happened because local news media could not circulate their news on online portals, and the local agents of international media could barely communicate outside the country. Therefore, when their international colleagues and friends heard about the unrest and internet restrictions in Bangladesh, they wanted to learn more but could not because of the lack of coverage. This caused skepticism and risked the participants' trustworthiness before the international communities in some cases, as we quote P4.

"If you recall, at that time, most news media did not have much coverage about the protest and current situations. The international ones had surface-level reports, and the local English ones were unable to cover much. It caused so much skepticism about our concerns. Other international people saw us stressed, even my PhD advisor, but he found almost zero information on the internet and was not sure why I was stressed and unproductive. I had to explain everything, and he was at aw! This is not good.", (P4, Male, 32 yrs)

Another five participants told us about similar situations where their international colleagues wanted to gather more information but could not, and later, when the internet was back, they still failed to gather much as most local Bangladeshi news media covered the news in the Bengali language. In cases of video-recorded news on the official YouTube channels of the news media, the language was in Bengali with no English subtitles. Our participants argued that such barriers jeopardized people's access to information.

4.5 Lack of Legal Consciousness

Seven of the participants told us that they were shocked and did not know anywhere to go to complain about the internet shutdown in Bangladesh. This is because they knew that access to information and the internet were important rights that were acknowledged. However, in a situation where the participants actually had an internet connection and their home country did not have one, and due to that reason, many of their other human rights were at risk, they were confused about how to frame this problem under human concepts. We quote P13,

"When they shut down the internet, and we lost all the connection with our friends and families in Bangladesh, we did not know who to go and complain about it. My other Bangladeshi friends kept on discussing whether there should be a complaint to the human rights organizations that my home country shut down the internet or should it be the United Nations — we did not know. We realized that we lacked consciousness about our right as immigrants.", (P13, Female, 31 yrs)

However, the participants were also worried that if foreign powers pressured a free country (e.g., Bangladesh), their home country's sovereignty might be threatened. Therefore, they urged for a clearer conceptualization of access to ICTs under human rights so that people do not feel violated regardless of geographic location.

5 Discussion and Future Direction

Findings from this ongoing research have brought our attention to several themes that cohere with emerging concerns in the intersection of immigrants' rights and access to information, and HCI:

First, Preliminary research indicates that Bangladeshi immigrants residing abroad experienced a sense of violation due to their limited ability to communicate with family and friends in Bangladesh. Furthermore, they expressed concerns that their public advocacy for social or political causes could potentially endanger the safety and security of their loved ones in the country.

Second, Several participants reported that their collaborative projects were adversely affected due to the remote work arrangements of team members based in Bangladesh. These disruptions resulted in economic losses for the participants. While a large body of collaboration research in HCI addresses concerns around language barriers and the sensibilities of situated knowledge, research has rarely looked into the differences in cross-border infrastructure, policies, and surveillance. Our research brings insights into this matter.

Third, our participants indicated that when they perceived their rights to be violated by their homeland, they often lacked clarity regarding appropriate avenues for seeking justice. Building on this, we argue that both home and host countries are accountable for protecting their rights, including their voice and access to information, and we urge human organizations to work together with HCI researchers and local policy-makers in conceptualizing and introducing cross-border policies in this regard.

In **future research**, we will find opportunities to work together with policy-makers and human rights organizations to design more accountable information and communication technology infrastructure so that people's human rights can be preserved regardless of their geographic location. We plan to collaborate with immigrants and local people as well as other stakeholders such as local and international policymakers and local government, among others. Our goal is to provide a holistic perspective on this sector so that researchers working in this domain may contribute to better designs of data and internet infrastructure and help immigrants, particularly those from marginalized communities.

References

- [1] Syed Ishtiaque Ahmed, Md Romael Haque, Irtaza Haider, Jay Chen, and Nicola Dell. 2019. Everyone Has Some Personal Stuff: Designing to Support Digital Privacy with Shared Mobile Phone Use in Bangladesh. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. ACM, 180.
- [2] Syed Ishtiaque Ahmed, Nusrat Jahan Mim, and Steven J Jackson. 2015. Residual mobilities: infrastructural displacement and post-colonial computing in Bangladesh. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. ACM, 437–446.
- [3] Daryna Antoniuk. 2024. Mobile internet and social media disrupted in Bangladesh amid student protests. <https://therecord.media/bangladesh-mobile-internet-social-media-outages-student-protests>.
- [4] Eric PS Baumer, Phil Adams, Vera D Khovanskaya, Tony C Liao, Madeline E Smith, Victoria Schwanda Sosik, and Kaiton Williams. 2013. Limiting, leaving, and (re) lapsing: an exploration of facebook non-use practices and experiences. In *Proceedings of the SIGCHI conference on human factors in computing systems*. ACM, 3257–3266.
- [5] Eric PS Baumer, Morgan G Ames, Jed R Brubaker, Jenna Burrell, and Paul Dourish. 2014. Refusing, limiting, departing: why we should study technology non-use. In *CHI'14 Extended Abstracts on Human Factors in Computing Systems*. ACM, 65–68.
- [6] Mehrab Bin Morshed, Michaelanne Dye, Syed Ishtiaque Ahmed, and Neha Kumar. 2017. When the internet goes down in bangladesh. In *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*. 1591–1604.
- [7] Jenna Burrell. 2010. Evaluating Shared Access: social equality and the circulation of mobile phones in rural Uganda. *Journal of Computer-Mediated Communication* 15, 2 (2010), 230–250.
- [8] Priyank Chandra, Syed Ishtiaque Ahmed, and Joyojeet Pal. 2017. Market practices and the bazaar: Technology consumption in ICT markets in the global south. In *Proceedings of the 2017 CHI conference on human factors in computing systems*. 4741–4752.
- [9] Priyank Chandra and Jay Chen. 2019. Taming the Amazon: the domestication of online shopping in Bangalore, India. In *Proceedings of the Tenth International Conference on Information and Communication Technologies and Development*. 1–11.
- [10] Jan Chipchase. 2005. Understanding non-literacy as a barrier to mobile phone communication. *Retrieved September 16 (2005)*, 2008.
- [11] Jan Chipchase. 2006. How do you manage your contacts if you can't read or write? *interactions* 13, 6 (2006), 16–17.
- [12] Harindrini Corea and Nazia Erum. 2024. What happened at the quota-reform protests in Bangladesh? <https://www.amnesty.org/en/latest/news/2024/07/what-is-happening-at-the-quota-reform-protests-in-bangladesh/>.
- [13] Staff Correspondent. 2024. New Age | Internet services not restored fully. <https://www.newagebd.net/post/country/240693/internet-services-not-restored-fully>.
- [14] Staff Correspondent. 2024. Social Media Block in Bangladesh | Social media off-limits indefinitely. <https://www.thedailystar.net/news/bangladesh/news/social-media-limits-indefinitely-3662216>.
- [15] Staff Correspondent. 2024. Users across country unable to use mobile internet. <https://www.daily-bangladesh.com/english/science-information-technology/96338>. (Accessed on 08/26/2024).
- [16] Sebastien Cuendet, Indrani Medhi, Kalika Bali, and Edward Cutrell. 2013. VideoKheti: making video content accessible to low-literate and novice users. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2833–2842.
- [17] David M Frohlich, Dorothy Rachovides, Kiriaki Riga, Ramnath Bhat, Maxine Frank, Eran Edirisinghe, Dhammike Wickramanayaka, Matt Jones, and Will Harwood. 2009. StoryBank: mobile digital storytelling in a development context. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 1761–1770.
- [18] Rikin Gandhi, Rajesh Veeraraghavan, Kentaro Toyama, and Vanaja Ramprasad. 2007. Digital green: Participatory video for agricultural extension. In *Information and Communication Technologies and Development, 2007. ICTD 2007. International Conference on*. IEEE, 1–10.
- [19] Shon Harris and Joe Kowtko. 2003. *Security+ Certification All-in-One Exam Guide*. McGraw-Hill, Inc.
- [20] Faheem Hussain, Abdullah Hasan Safir, Dina Sabie, Zulkarin Jahangir, and Syed Ishtiaque Ahmed. 2020. Infrastructuring hope: Solidarity, leadership, negotiation, and ict among the rohingya refugees in bangladesh. In *Proceedings of the 2020 International Conference on Information and Communication Technologies and Development*. 1–12.
- [21] Maia Jacobs, Henriette Cramer, and Louise Barkhuus. 2016. Caring About Sharing: Couples' Practices in Single User Device Access. In *Proceedings of the 19th International Conference on Supporting Group Work*. ACM, 235–243.
- [22] Victor Kaptelinin and Bonnie Nardi. 2012. Affordances in HCI: toward a mediated action perspective. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 967–976.

- [23] Parisa Khanipour Roshan, Maia Jacobs, Michaelanne Dye, and Betsy DiSalvo. 2014. Exploring how parents in economically depressed communities access learning resources. In *Proceedings of the 18th International Conference on Supporting Group Work*. ACM, 131–141.
- [24] Neha Kumar and Richard J Anderson. 2015. Mobile phones for maternal health in rural India. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. ACM, 427–436.
- [25] Brandie Lee Martin and Eric Abbott. 2011. Mobile phones and rural livelihoods: Diffusion, uses, and perceived impacts among farmers in rural Uganda. *Information Technologies & International Development* 7, 4 (2011), pp–17.
- [26] Indrani Medhi, Ed Cutrell, and Kentaro Toyama. 2010. It's not just illiteracy. *India HCI/Interaction Design & International Development*, Mumbai (2010).
- [27] Indrani Medhi-Thies, Pedro Ferreira, Nakull Gupta, Jacki O'Neill, and Edward Cutrell. 2015. KrishiPustak: A social networking system for low-literate farmers. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*. ACM, 1670–1681.
- [28] Md Nurul Momen and Debabrata Das. 2021. Mediated democracy and internet shutdown in India. *Journal of Information, Communication and Ethics in Society* 19, 2 (2021), 222–235.
- [29] Sebastian Moss. 2024. Bangladeshi Internet blackout due to government orders, not data center fire - report - DCD. <https://www.datacenterdynamics.com/en/news/bangladeshi-internet-blackout-due-to-government-orders-not-data-center-fire-report/>.
- [30] JS Parikh and Kaushik Ghosh. 2006. Understanding and designing for intermediated information tasks in India. *IEEE Pervasive Computing* 5, 2 (2006), 32–39.
- [31] Gina Porter, Kate Hampshire, Albert Abane, Alistair Munthali, Elsbeth Robson, Mac Mashiri, and Augustine Tanle. 2012. Youth, mobility and mobile phones in Africa: findings from a three-country study. *Information Technology for Development* 18, 2 (2012), 145–162.
- [32] Nimmi Rangaswamy and Nithya Sambasivan. 2011. Cutting Chai, Jugaad, and Here Pheri: towards UbiComp for a global community. *Personal and Ubiquitous Computing* 15, 6 (2011), 553–564.
- [33] Star Digital Report. 2024. Bangladesh Reconnects to Mobile Internet | Mobile internet restored in Bangladesh. <https://www.thedailystar.net/news/bangladesh/news/mobile-internet-restored-bangladesh-3663836>.
- [34] Nithya Sambasivan, Ed Cutrell, Kentaro Toyama, and Bonnie Nardi. 2010. Intermediated technology use in developing communities. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2583–2592.
- [35] Jahanzeb Sherwani, Nosheen Ali, Sarwat Mirza, Anjum Fatma, Yousuf Memon, Mehtab Karim, Rahul Tongia, and Roni Rosenfeld. 2007. Healthline: Speech-based access to health information by low-literate users. In *Information and Communication Technologies and Development, 2007. ICTD 2007. International Conference on*. IEEE, 1–9.
- [36] Geeta Shroff and Matthew Kam. 2011. Towards a design model for women's empowerment in the developing world. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2867–2876.
- [37] Sharifa Sultana and Syed Ishtiaque Ahmed. 2019. Witchcraft and HCI: Morality, Modernity, and Postcolonial Computing in Rural Bangladesh. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. ACM, 356.
- [38] Sharifa Sultana, Syed Ishtiaque Ahmed, and Susan R Fussell. 2019. "Parar-daktar Understands My Problems Better" Disentangling the Challenges to Designing Better Access to Healthcare in Rural Bangladesh. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–27.
- [39] Sharifa Sultana, Rokeya Akter, Zinnat Sultana, and Syed Ishtiaque Ahmed. 2022. Toleration Factors: The Expectations of Decorum, Civility, and Certainty on Rural Social Media. In *Proceedings of the 2022 International Conference on Information and Communication Technologies and Development*. 1–14.
- [40] Sharifa Sultana, Rokeya Akter, Zinnat Sultana, Salim Reza, Syed Ishtiaque Ahmed, and Jeffrey M Rzeszotarski. 2024. Understanding Environmental Sustainability and Information Practices in Global South Fish Farming. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*. 1–7.
- [41] Sharifa Sultana, Mitrasree Deb, Ananya Bhattacharjee, Shaïd Hasan, SM Raihanul Alam, Trishna Chakraborty, Prianka Roy, Samira Fairuz Ahmed, Aparna Moitra, M Ashraf Amin, et al. 2021. 'Unmochon': A Tool to Combat Online Sexual Harassment over Facebook Messenger. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–18.
- [42] Sharifa Sultana and Susan R Fussell. 2021. Dissemination, situated fact-checking, and social effects of misinformation among rural Bangladeshi villagers during the COVID-19 pandemic. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–34.
- [43] Sharifa Sultana, François Guimbretière, Phoebe Sengers, and Nicola Dell. 2018. Design Within a Patriarchal Society: Opportunities and Challenges in Designing for Rural Women in Bangladesh. (2018).
- [44] Sharifa Sultana, Shaïd Hasan, Khandaker Reaz Mahmud, SM Alam, and Syed Ishtiaque Ahmed. 2019. 'Shada Baksho': a hardware device to explore the fears of using mobile phones among the rural women of Bangladesh. In *Proceedings of the Tenth International Conference on Information and Communication Technologies and Development*. ACM, 36.
- [45] Sharifa Sultana, Ilan Mandel, Shaïd Hasan, SM Raihanul Alam, Khandaker Reaz Mahmud, Zinnat Sultana, and Syed Ishtiaque Ahmed. 2021. Opaque obstacles: The role of stigma, rumor, and superstition in limiting women's access to computing in rural bangladesh. In *Proceedings of the 4th ACM SIGCAS Conference on Computing and Sustainable Societies*. 243–260.
- [46] Sharifa Sultana, Md Mobaydul Haque Mozumder, and Syed Ishtiaque Ahmed. 2021. Chasing Luck: Data-driven Prediction, Faith, Hunch, and Cultural Norms in Rural Betting Practices. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–17.
- [47] Sharifa Sultana, Pratyasha Saha, Shaïd Hasan, SM Raihanul Alam, Rokeya Akter, Md Mirajul Islam, Raihan Islam Arnob, Mahdi Nasrullah Al-Ameen, and Syed Ishtiaque Ahmed. 2020. Understanding the Sensibility of Social Media Use and Privacy with Bangladeshi Facebook Group Users. In *Proceedings of the 3rd ACM SIGCAS Conference on Computing and Sustainable Societies*. 317–318.
- [48] Sharifa Sultana, Zinnat Sultana, and Syed Ishtiaque Ahmed. 2020. Parareligious-HCI: Designing for 'Alternative' Rationality in Rural Wellbeing in Bangladesh. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–13.
- [49] John Tanner. 2024. 'Bangladesh internet blackout not caused by data centre fires' | Developing Telecoms. <https://developingtelecoms.com/telecom-business/telecom-regulation/17153-bangladesh-internet-blackout-not-caused-by-data-centre-fires-report.html>.
- [50] Hotenzia Wakadha, Subhash Chandir, Elijah Victor Were, Alan Rubin, David Obor, Orin S Levine, Dustin G Gibson, Frank Odhiambo, Kayla F Laserson, and Daniel R Feikin. 2013. The feasibility of using mobile-phone based SMS reminders and conditional cash transfers to improve timely immunization in rural Kenya. *Vaccine* 31, 6 (2013), 987–993.
- [51] Bill Woodcock and Packet Clearing House. 2011. Overview of the Egyptian internet shutdown. *Packet Clearing House* (2011).
- [52] Susan Wyche and Jennifer Olson. 2018. Gender, Mobile, and Mobile Internet| Kenyan Women's Rural Realities, Mobile Internet Access, and "Africa Rising". *Information Technologies & International Development* 14 (2018), 15.
- [53] Susan Wyche and Charles Steinfield. 2016. Why don't farmers use cell phones to access market prices? technology affordances and barriers to market information services adoption in rural Kenya. *Information Technology for Development* 22, 2 (2016), 320–333.