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## RESEARCH-ARTICLE

# The Good, The Bad and The Ugly: The Opportunities, Challenges and the Mitigation Strategies of the Young Indigenous Social Media Users of the Chittagong Hill Tracts in Bangladesh

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# The Good, The Bad and The Ugly: The Opportunities, Challenges and the Mitigation Strategies of the Young Indigenous Social Media Users of the Chittagong Hill Tracts in Bangladesh

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## Abstract

The Chittagong Hill Tracts (CHT) of Bangladesh is home to numerous Indigenous ethnic communities, and their languages, rituals, and values are distinct from those of the mainstream population. These differences, coupled with the past eight decades of turbulent political history, have contributed to the decline of communal harmony among different stakeholders in this region, which has been further aggravated by the advent of social media. In this work, we study the unique challenges faced by Indigenous young community members in Bangladesh when using the social media. Through a qualitative approach involving interviews and focus group discussion sessions, we investigate the online experiences encountered by this population along with their protection and coping mechanisms. Our findings provide a nuanced portrayal of both the internal and external challenges faced by these users. We further connect our findings to the broader issues in HCI and offer a few design recommendations.

## CCS Concepts

• **Human-centered computing** → **Empirical studies in collaborative and social computing**; *Empirical studies in HCI*; • **Security and privacy** → *Privacy protections*.

\*Both authors contributed equally to this research.

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## Keywords

Indigenous HCI, Global South, Chittagong Hill Tracts (CHT), Colonialism, Cultural Divide, Fake News, Misinformation in Social Media, HCI4D.

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## 1 Introduction

Despite constituting around 6% of the global population [102, 136] and contributing significantly to enrich the historical and cultural diversities around the world [154], the Indigenous community members encounter many significant challenges such as extreme poverty and denial of basic, political, and social rights [136, 184]. In contemporary times, technology and social media have become integral to the lives of these people in different sectors such as communication, education, healthcare, banking, business, and tourism [59, 61]. With the advancement of technology and the globalization of communication, Indigenous communities have started to rely on social media as a tool of interaction among themselves and others [148]. This rapid change not only affected Western communities where technological advancement is faster [145] but also profoundly influenced the marginalized communities around the world [130], including the Global South. For example, among the Garo Indigenous farmers in India, about “87.80 percent use their mobile phones for agricultural needs” [121]. Furthermore, the use of mobile phones and the internet has increased so much that it has directly affected the traditional way while introducing many new earning opportunities, including “new services, workforce

transformation, and business innovation” which have affected the rural tribal lives also [21]. These studies signify the importance of analyzing the effects of technology on the Indigenous communities in these areas. In particular, eleven different Indigenous communities in the Chittagong Hill Tracts (CHT) area in Bangladesh – also collectively known as the “Jumma” population – are considered to be one of the most marginalized populations in the country as they share a long historical interaction with colonialism [185], politics [159], and climate change [81, 86], and understanding the social media usage of these community members align with the core HCI values such as diversity [94], inclusivity [192], and identity [170].

In Bangladesh, the Jumma population face many significant challenges even after more than 50 years of independence [133], which have been well documented in various domains including anthropology [1, 134, 183], political science [2, 132, 185], social science [19, 51], environmental studies [131, 153], development studies [105], and law [149, 159, 195]. These studies described how ethnic identities and cultural differences affect the Jumma communities and their religious and cultural aspects. In comparison to other Indigenous community members in Bangladesh, the Jumma population of CHT draws special attention due to their presence at a sensitive geopolitical strategic location in South Asia that borders India and Myanmar [8]. Furthermore, the internal conflict on the land between the Bengali settlers and the Jumma people of CHT has created internal displacement of the people and been a matter of concern that was partially resolved in 1997 [8] via the “CHT Accord” – popularly known as the “Peace Accord”. Such conflict and the history of this region not only reveal the differences between the plain land and hilly areas but also show the perspective differences among people [149]. Moreover, due to the perpetual heritage of non-recognition and nonchalance of the mainland, these communities face the denial of needs, unfair treatment, and inequalities [52] and are prone to vulnerabilities to natural calamities [73, 114, 174] and disasters. Despite all these incidents, these communities demonstrate strong resilience by leveraging their ancestral knowledge of the adoption, mitigation, and survival instincts of the area [194]. The history and events create formidable challenges in understanding the role of HCI in ensuring a safe and better online environment for these communities.

Against these backdrops, we investigate the social media usage of the Indigenous young Jumma community members. Indigenous communities, alongside mainstream populations, have also adopted these platforms, leading to both positive and negative impacts on their lives and cultures [30, 101, 125, 144, 156]. Despite the increasing dependency on social media platforms (such as Facebook, YouTube) for communication and other activities by the Jumma people [60, 120], the study on the impact of social media within Bangladeshi Indigenous communities is under-explored in the context of the Global South and significantly constrained [158]. In recent years, media outlets in Bangladesh have extensively reported multiple violent incidents in CHT, which originated due to social media content and interactions [100, 106]. These issues are further aggravated by the propagation of fake news through social media platforms. Furthermore, prior HCI research [29, 98] reveals that marginalized community members face systematic discrimination and cyberbullying on social media. The HCI community has a long-standing tradition of investigating online harassment

[93, 115, 128, 160, 171], cyberbullying [12, 54, 67, 99], propagation of fake news, and misinformation on social media [55, 68, 85]. Our work intends to advance this literature by focusing on the social media experiences of the young Jumma community members in Bangladesh.

To this end, we conducted a three-month-long study involving 30 young Indigenous community members from the Chittagong Hill Tracts in Bangladesh. The study aimed to gain a situated understanding of their social media usage behavior, the associated threats and challenges, and the mitigation strategies. We found that social media plays a ‘*dual role*’ for this community—serving as a ‘*critical tool*’ for empowering them as digital archivists and cultural ambassadors while also exposing them to heightened risks of privacy violations, cyber harassment, and systemic marginalization. Our participants creatively leverage digital platforms to preserve endangered traditions, amplify Indigenous voices, and foster collective activism against oppression. At the same time, they adopt sophisticated mitigation techniques such as ‘social ciphering’, ‘linguistic camouflage’, and ‘strategic avoidance’ to safeguard their online presence and counteract digital vulnerabilities. These practices highlight the community’s resilience and resourcefulness in leveraging ‘*technology as a tool*’ for empowerment amid sociopolitical adversity.

Our research makes a threefold contribution to the HCI literature. First, this study contributes to the fields of Indigenous HCI, Human-Computer Interaction for Development (HCI4D), and ICT and Development (ICTD) [96] by expanding the understanding of how young adults from one of the most marginalized communities in the Global South engages with technology and social media, particularly in the context of protecting and promoting their culture. Second, we explored the online threats encountered by these users and the associated mitigation strategies. Finally, we connect our findings to the broader issues in HCI and propose a few context-specific recommendations.

## 2 Background and Related Work

Bangladesh is enriched by both geographic and ethnic diversity, which creates a unique appearance. Therefore, the people of the plain and the hill tracts have distinct physical appearances, behaviors, food habits, culture, and religion. All these diversities show the enriched tapestry, contributing to the nation’s unique identity [32, 103]. In this section, we present the background information and a brief history of the Jumma people. We explored colonial computing in the context of the Global South, correlating it to the Global North, while examining the privacy and security concerns of the digital presence of Indigenous communities.

### 2.1 CHT and Indigenous Jumma People

CHT refers to the extensively hilly terrains of southeastern Bangladesh and consists of three districts - Rangamati, Khagrachari, and Bandarban. This area consists of almost 10% of Bangladesh’s total land bordering India and Myanmar with an enriched history of decades [15]. Bangladesh is the home of fifty-four (54) ethnic Indigenous communities with a population of 1,650,478 people, which is almost 1% of the total population [139]. The

largest Indigenous population is found in CHT [66, 195] spreading in eleven (arguably thirteen) ethnic Indigenous communities: Chakma, Marma, Tripura, Tanchangya, Murung, Lushai, Khumi, Chak, Khyang, Bawm, Pankhua. Besides, a very small number of descendants of Assamese and Gorkhas also live there [52, 177]. These people follow the hill agricultural method (shifting cultivation, slash and burn agriculture) - “**Jum**”, which is also widely practiced in South, South-East Asia [113, 135, 181, 188]. In CHT, the people practicing Jum cultivation are collectively referred to as “**Jumma**” people in CHT [113]. Their basic demographic information is represented in Appendix C. For a long period, these Indigenous people have been marginalized in many aspects of their lives, which necessitates studying this region’s history.

**Brief History:** This region, along with the current Chittagong district, was a tributary state under the British government from 1757 to 1860. In 1860, the tributary state was split and a non-regulated state was formed with the current CHT region with a limited autonomy under British India. In 1900, the British government enacted the CHT Regulation 1 of 1900 and declared CHT as a ‘Backward Tracts’, and later a totally ‘Excluded Area’, in 1900 and 1935, respectively, to protect the Jumma people from economic exploitation by non-Indigenous people and preserve their traditional sociocultural and political institutions based on customary laws, community ownership of land, and so on. This region became a part of the then East Pakistan once the British rule ended in 1947. In 1960, the Pakistan government built the Kaptai hydroelectric dam across the Karnafuli River in the name of industrial development which broke down the economic backbone of the people of CHT as it flooded 1,036 square kilometers of land and submerged 54% (54,000 acres) of the best arable land. It caused a displacement of about 100,000 Jumma people from their ancestral homes for good [142].

After the independence of Bangladesh in 1971, the state constitution did not recognize the Indigenous Jumma people in this region, which caused a revolt in 1975, and the armed struggle continued for 22 years and ended with a “CHT Accord” in 1997 [8]. CHT is the home of a diverse Indigenous population in Bangladesh and this region has enjoyed a self-administration until 1947. Although these communities have been a part of Bangladesh for centuries, they are still facing denial of needs, unfair treatment, and inequalities in all sectors [52]. For instance, in the Fifteenth Amendment to the Constitution of Bangladesh, minority ethnic communities were referred to as ‘tribes’ or ‘ethnic minorities,’ rather than being recognized as ‘Indigenous’ or ‘Adivasi’<sup>1</sup> [6, 33, 50, 82]. Furthermore, many of these tribes still can not access the basic needs and facilities [52].

## 2.2 Social Computing in Global South and North Indigenous Communities

Indigenous community members are dependent on technology. A recent body of work found that Indigenous communities use Technology as a “Tool” to achieve their objectives [80]. This advanced era of technology affects the ethnic people of both parts of the world.

**2.2.1 Social Computing in Global North Indigenous Communities.** Social computing is an interaction of social behavior and computational systems that examines how individuals engage with one another through social media, online communities, and collaborative platforms [116]. Recently, researchers have started considering the significance of the relationship between Indigenous people and technology in the HCI domain. Literature has studied the effects of technology on ethnic groups in Oceania [98, 167] and the USA [29], representing the Global North. These works can be grouped into 1) how the adoption of technology benefits the Indigenous community, and 2) how the design choices of the technological tools impact the Indigenous community [155].

Several studies have found technological adoption benefits both the modern Indigenous youth in improved psychological traits (increased confidence) [118, 119, 126], and the people with limited education because of the visualization and interactive support of the technological tools [90, 118]. Moreover, technological tools adoption within the Indigenous community in communication [156], financial services [76, 156], religious activities [20], agriculture [97, 191], start-up business [196], and Information Technology (IT) [53] are reported to be a boon in their daily life activities. The presence in digital space and using technology has helped the Indigenous people of the Navajo community by “conducting prayers by phone or FaceTime”, “multipoint videoconferencing”, “Home-based Telemonitoring” and with other facilities [20] during COVID-19.

Moreover, prior work [117] reports the importance of understanding the feelings, thoughts, and proposals about Indigenous knowledge (IK) before designing or proposing any technological solutions. A study on Canadian Indigenous Youths has examined the mental challenges faced by online bullying while having the indispensability of culture-based mental health programs to make it more effective because most of the time these programs are based on the majority of the population [28]. While another literature [137] developed a framework on the Kanaka Maoli (Native Hawaiian) community and suggested maintaining the equability of designs, including preserving their Indigenous knowledge. Consequently, they also pointed out that the framework may vary from community to community. Furthermore, after interviewing the Kenyan diasporan women of Australia, a study suggested new approaches to preserving and sharing their Indigenous knowledge (IK) even after displacement [13]. Prior work [117] emphasizes the importance of the Global South Indigenous study to create more user-friendly technological frameworks and designs that could potentially augment alternate research directions and theories to the existing literature. Extensive research has examined the impact of technology on Indigenous communities in the Global North. However, there is a growing need to explore Indigenous communities in the Global South, where studies remain limited.

**2.2.2 Social Computing in Global South Indigenous Communities.** Existing literature mostly studied the impact of technology on the Indigenous communities of the Global North [124] whereas the large population (82% of the global population) of the Global South is still understudied [172]. Limited explorations have been made in India [151], Sri Lanka [57, 63], Sudan [84], Nepal [62], and

<sup>1</sup>The Adivasi are heterogeneous tribal groups across the Indian subcontinent [104].

Bangladesh [89, 158]. Rajeevan et al. [151] explored the implications of sustainable technology for agricultural growth of the Irula community in India. By conducting focused group discussions and gathering quantitative data, researchers found that “Dambana Radio” serves as the leading media of the “Vedda community”, which is formed by the elders in Sri Lanka [57]. Prior studies [63, 84] also investigate the human rights of the Indigenous communities of India, Sudan, and Sri Lanka. While another study [62] explored the use of social media as a means of self-empowerment, connectivity, and, sharing awareness among the Indigenous community members. An additional piece of literature [89] proposed an Information and Communication Technology (ICT)-based model aiming to improve different aspects of Indigenous people’s lives including academia, commerce, judicial affairs, and tourism. In line with this, scholars [158] explored the technological adoption of the Indigenous communities of Bangladesh during COVID-19, and how the adoption has helped to sell traditional products all over Bangladesh. This also reported the negative impact of online fraud and fake information. As fake information has increased drastically, it has affected the lives of Bengali people, including marginalized individuals by taking a toll on deaths, assaults, and violence [85]. Within the limited exploration of the Global South Indigenous communities, the effects of misinformation, privacy concerns, and protection mechanisms in the social platforms have been less considered.

## 2.3 Social Media Adoption and Cyberbullying Concerns Among Indigenous Communities

The presence of Indigenous people online is growing every day [158], along with the associated risks and concerns. This has made them more vulnerable, increasing the chances of being affected by others, either knowingly or unknowingly [58, 129, 140, 156].

**2.3.1 Adoption of Social Media by the Indigenous Communities and the Concerns.** Social media has a broader impact on the different spectrum of society [169], for instance, engaging people from various backgrounds in the movements has become easier because of the internet [23, 24, 83]. Literature [29, 98, 125] studied the influence of social media on various Indigenous communities such as strengthening marginalized communities by allowing collaborative action [186], communication [156]. Social media allows the sharing of political ideas among marginalized social groups and gives them a sense of belongingness and political reinforcement [42, 110, 189]. Note that, some community members can access the internet through cellular networks [122] and WiFi [168] while others need to rely on local businesses, libraries, and media centers [122]. As the presence of social media and its influence is ever-increasing, concerns have arisen regarding the ethical usage of social media [117]. The struggle of the Indigenous communities could have shaped their perceptions of social media and its influence from both an online platform and a real-life environment.

**2.3.2 Effects of Cyberbullying on Indigenous People in Digital and Physical Spaces.** Increased social media platforms with their diversified content to express individuals’ ideas and opinions, the surge of online harassment and hatred is paramount. The existing regulatory scheme of the social media platforms struggles to prevent the spreading of online harassment and hatred [10, 182]. Often

such abusive behavior spills from the digital space to the physical real-life environment [36, 37, 95, 146]. Many focused groups, including women, refugees, including the Indigenous population, are at risk of being the victims [10, 38, 74, 182, 187, 197]. Scholars [125] shed light on the fact that social media is being used to exploit the rural Indigenous girls in Western Canada, describing the necessity of raising awareness through social media and proper education. Existing literature also [29] discussed that cyberbullying victims can not return to their regular lives easily because of the huge emotional damage that they face. In the case of the Indigenous population, the feeling of depression due to cyberbullying is interestingly different [28] and the mental suffering is more severe than the dominant majority population [43, 78, 193]. Moreover, another literature [173] found that cyberbullying experiences differ from one to another, which begs that different hate and harassment issues need distinct strategies [182] to circumvent the problem. In recent work, researchers found that chatbots can be a good medium to help the youths understand cyberbullying [91].

These studies reveal that the existence, depth, and impact of cyberbullying on Indigenous populations in the Global South remain underexplored. To our knowledge, only a few studies have examined how Indigenous individuals in the Global South perceive social media’s influence on their culture and values. Our research seeks to address this gap through a three-month study focused on the younger generation of the Jumma people (referred to as the Indigenous people for the rest of the paper) in the Chittagong Hill Tracts, Bangladesh.

## 3 Methodology

In our study, we explored the social media usage of the young Indigenous community members of the CHT, focusing on individuals who have received an institutional education and are active on social media. We conducted our study over a seven-month period between May 2024 and November 2024. A total of 30 participants (18 males and 12 females), aged between 20 and 35 years, were recruited for the study. Depending on their availability and comfort, we conducted three group discussions (with 18 participants in total) and 12 individual interviews. The participants came from various professions, including university students (22), professionals (5), school teachers (2), and activists (1). The details of the participants are provided in Appendix D.

**Table 1: Demographic information of Indigenous participants.**

Community	Participant	Male	Female
Chakma	12	8	4
Marma	5	2	3
Tripura	2	1	1
Tanchangya	4	1	3
Mro	4	4	0
Chak	1	1	0
Khumi	1	1	0
Bawm	1	0	1
Total	30	18	12

### 3.1 Participant Recruitment and Interview Procedure

We initiated the recruitment through one of our co-authors who belongs to one of the eight Indigenous communities that we studied. The first four participants were his acquaintances, and from there, we proceeded through snowball sampling. We also recruited participants randomly by advertising our study on various social media groups. To ensure participants' comfort and create a familiar environment [7], we conducted four group discussions: two in-person and two online. The participants were distributed as follows: Group 1 had 9 members, Group 2 had 2 members, Group 3 had 5 members and Group 4 had 2 members. More details about the group discussions are provided in Table 4 in Appendix.

In addition to the group discussion sessions, twelve additional participants agreed to take part in individual interviews. We continued the interviews until we reached data saturation. Although our original plan was to conduct everything face-to-face, political unrest in Bangladesh from July 8 to August 20 [4, 108] necessitated a shift to remote methods. Consequently, the first two group discussions, involving 11 participants, were held in person, while the rest of the group discussions and all individual interviews were conducted via Google Meet. Consent was obtained for both offline and online interviews. For offline interviews, participants provided consent using printed forms; for online interviews, consent was given via Google Forms. In both cases, we verbally explained the consent form and received verbal consent as well.

The interviews were conducted in Bangla, and participants' written and verbal consent was obtained prior to recording. We ensured that the purpose of the recording and how the recordings would be used were clearly communicated to the participants. In response to some participants' concerns about privacy, we assured them that all recordings would be permanently deleted after the anonymous transcription process would be completed.

### 3.2 Data Analysis

For data analysis, two of our authors, who are native Bangla speakers, translated and transcribed the audio recordings manually without using any automated software. Content analysis began immediately after the first discussion, providing a better context-based understanding that informed subsequent data collection [75]. We used thematic analysis [26] and inductive coding (open coding) method [44]. Three members of the group coded each piece of data and labeled them individually with different themes. Then the labels added by different members were compared. When the labels matched, they were accepted. When the labels did not match, the whole team discussed that piece of data and an agreement was achieved through the discussion. Example codes include "privacy," "hate posts," "memes and trolls," "freedom of speech," "sensational journalism," "censorship," etc. We did not use predetermined themes to maintain openness to emerging themes. The whole team worked together to group the related themes and find the final set of broader themes that can illustrate our findings the best.

### 3.3 Ethical Consideration and Positionality

Our research protocol was reviewed and approved by the research ethics board of BRAC University. Throughout the interviews and

discussions, we were extremely careful engaging in respectful conversations with our participants, acknowledging that they belong to a highly marginalized community with their own culture and norms. Before beginning the interviews, we engaged in extensive discussions with our author, a member of the Indigenous community of CHT, and conducted an ethnographic background study. We also clearly communicated our neutral stance on political and religious issues to avoid any potential miscommunication. Moreover, we avoided political issues as much as possible, as our study was mainly focused on culture, norms, unawareness, and online harassment. Participants were informed of their right to withdraw their data after the interview, skip questions, or leave the interview at any time. During reporting, we omitted sensitive information that could harm the community and removed all identifiers (e.g., location, institution) to ensure participants' safety. According to the local customs in Bangladesh, the participants were offered light snacks and tea [88]. We note that financial compensation is mainly offered for recruiting professional participants to describe their work experience [87, 162].

Our questionnaire was crafted by the authors, drawing from insights in existing literature [158], background studies, and the authors' substantial HCI expertise. The whole interview questionnaire is shared in Appendix A. One author, who is a member of the Indigenous community and was born and raised in the CHT, supervised the interviews. The other authors contributed extensive experience working with Indigenous and marginalized communities. In solidarity with the rights of Indigenous peoples, we recognize and support their fundamental human rights and their efforts to preserve their cultural identity. Moreover, we envision a Bangladesh where ethnic harmony prevails, allowing both Indigenous and Bengali communities to live together peacefully.

## 4 Findings

In this section, we first present an overview of how social media is leveraged by the young Indigenous community members in Bangladesh, particularly in protecting and promoting their culture, heritage, history, and identity. We also provide a situated understanding of their social media behavior in the context of cultural diversity, conservatism, and appropriation. Next, we highlight the online threats and challenges encountered by these participants, with a detailed description of how these issues are translated into the physical world. Finally, we summarize the mitigation strategies adopted by them.

Participants from the group interviews are denoted using the format G#, P#, Gender. For example, "G1, P1, Female" represents the first participant from group one who identifies as female. For individual interviews, we use the format I#, Gender. For instance, "I1, Male" represents the first individual participant who identifies as male. Table 2 provides the definitions of the key terms used throughout the Findings section.

### 4.1 Cultural Protection

We found that culture plays the most important role in shaping the social media behavior of our participants. The Indigenous young people of CHT extensively use social media and the Internet to preserve their culture and protect their ethnic identity. In doing so,

**Table 2: Definition of key terms.**

Terms	Definition
Upojati	This is a Bengali word that translates to sub-nation. This term is used to refer to non-Bengali population in Bangladesh. The Indigenous people of CHT do not embrace this term with their identity. Instead, they prefer to be referred to as 'Adivasi'. 'Adivasi' is also a Bengali word that translates to the term 'indigenous' in English [143].
Hallung	A large basket-shaped artifact used to carry agro-products on the back with a circular strap attached to the basket bottom [25].
Mejang	A stockpot-shaped artifact used as a dining table at wedding receptions [48].
Pinon	A traditional Chakma attire for women, serving as the lower garment, wrapped around the waist [175].
Hadi	The upper garment of traditional Chakma women's attire, complementing the Pinon to complete the outfit [175].
Water Festival	The Marma/Mogh Indigenous community celebrates the 'Rilong Poweh' water festival during the Sangrai (marks the New Year in the 'Mraima' calendar) in Bangladesh [47].
Saree	A traditional Bengali female outfit, consisting of a long, draped cloth worn over an underskirt, known for its elegance and cultural significance [150].
Punjabi	A traditional Bengali attire, worn by both men and women. For men, it typically includes a long shirt called a kurta paired with loose-fitting trousers, such as pyjama or salwar [5].
Ching Chong	A derogatory ethnic slur historically used to mock or insult individuals of East Asian descent. It caricatures the sound of East Asian languages, perpetuating stereotypes and reinforcing xenophobic attitudes. Its usage is widely recognized as offensive and racist [39].

they have to consider both internal and external circumstances. In this section, we provide a nuanced portrayal of these issues.

**4.1.1 Preservation of identity, heritage, and history.** From our interviews, we found that the Indigenous members of the CHT strive to preserve their culture through various means. Our participants shared that they leverage modern technology, such as social media, to promote their cultural symbols and elements. For example, one participant mentioned that they use social media to showcase cultural tools, introducing their heritage to a broader audience:

“When I post about traditional elements like Hallung or Mejang, my friends often ask me about them. They respond positively and show great curiosity about our traditions. Without social media, it would not have been possible for us to share our traditions so effectively with our Bengali friends, which is a genuinely positive impact.” [I4, Male]

In addition to social media, the Indigenous youth of CHT also use platforms like YouTube to preserve their cultural heritage. These platforms allow them to upload videos and songs, ensuring that cultural practices are documented and accessible for future generations:

“Platforms like YouTube, in particular, have played a vital role in preserving our cultural songs and language. Uploading these songs to YouTube serves as an effective method of preservation, which is a positive development.” [I2, Male]

Another participant further elaborated that the traditional songs and poems of her culture and community – which were on the verge of extinction once – have now been preserved through technology. This preservation takes place through digitally recording and storing the cultural artifacts:

“This is the era of globalization, and every culture is somehow affected by technology. In our case, for example, there are Chakma songs and poems that were once on the verge of extinction. But thanks to technology, they are now recorded and can be passed down from generation to generation.” [G1, P8, Female]

During our study, we also found that young Indigenous people use social media to promote their cultural events online, helping to spread their cultural history to people outside of their community.

“Nowadays, the Masus (the individuals responsible for organizing programs) from the Rakhine community use social media to promote their events. As a result, many people are learning about the Rakhin traditions, which helps to advertise their culture. Additionally, they collaborate with popular social media vloggers to promote those events, which further boosts the popularity of those events.” [I7, Male]

In addition to preserving their cultural heritage, social media also helps in raising awareness among the mainstream Bengali population regarding Indigenous movements and historical incidents.



For example, during the Quota Reform Movement<sup>2</sup> in Bangladesh, the history and quotes of Kalpana Chakma<sup>3</sup> were highlighted to draw attention to the oppression in CHT. As a result, Kalpana Chakma's words and history gained widespread recognition, helping to bring a relatively unknown aspect of Indigenous history to the new generation. In this case, they have used social media to show the similarity of struggle between them and the Bengali people. In the words of a participant:

"You see, people are also becoming more aware of our history because of social media. A few days ago, only a few people knew about Kalpana Chakma, but today, many more are familiar with her work and history. Additionally, on August 9 of this year, during the 'International Indigenous Day,' many posts were shared about us – the discrimination we face. The timing was good because the Quota Reform Movement had just become successful, so people were really vocal about any form of oppression or discrimination. This is really a great thing. It's a positive aspect of social media that people are learning about our historical figures." [G3, P4, Female]



**Figure 1: The original and the vandalized graffiti (Collage) [138]. The top-left graffiti translates to “Save the Hill, Save the Country” and the top-right as “Kalpana Chakma 1996?” Perpetrators vandalized the “Save the Hill” from the top-left graffiti and the entire top-right graffiti, resulting in the bottom-left and bottom-right images, respectively.**

<sup>2</sup>On August 5, 2024, the Quota Reform Movement in Bangladesh, which had evolved into an anti-government uprising, culminated in the successful overthrow of the former government of Bangladesh. [41].

<sup>3</sup>Kalpana Chakma was an Indigenous rights activist from the Chittagong Hill Tracts in Bangladesh, who was abducted from her home and possibly murdered in 1996, allegedly by security forces personnel. She has been missing ever since. Her disappearance became a symbol of the struggle for justice and human rights for the Indigenous people in the region [109].

Another participant categorically mentioned an incident regarding Kalpana Chakma that highlights the importance of social media in empowering the voice of the Indigenous population:

"After August 5, when the Quota Reform Movement became successful, students launched their 'Reform Bangladesh' mission. As part of this movement, they began creating art and graffiti on old walls to beautify them and preserve the memories of the protest. In the Chittagong Hill Tracts (CHT), many Indigenous students made graffiti of Kalpana Chakma, which was allegedly destroyed by law enforcement agencies. This incident went viral on social media, leading to widespread support from Indigenous people across Bangladesh, who then created more graffiti of Kalpana Chakma. I remember seeing a post that said, 'If one Kalpana Chakma dies, a thousand Kalpana Chakmas will be born.' This shows how, through social media, we can now collectively protest against oppression." [G3, P4, Female]

She also referred us to the Facebook post relevant to her quote, which is depicted in Figure 1.

During our interviews, we found that the Indigenous young people of CHT try to preserve their language through social media as well. While CHT is one of the top tourist spots in Bangladesh and the places here are mostly named in their native language, they understand that the distinct pronunciation of the Indigenous words often makes it challenging for the Bengali tourists to learn the original names of the places. Over time, these Indigenous names have been modified, pushing them to the verge of extinction. However, there is now a renewed effort to preserve these unique names, with social media playing a key role. Our participants shared that they actively post on Facebook using the traditional Indigenous names as they believe that these names are closely tied to their identity:

"We have our own names for places, which come from our language. However, these names and pronunciations are difficult for Bangla-speaking people or tourists. Over time, they have modified the names. For instance, the place now known as 'Keokradong' is called 'Kyaka krah tang' by us. 'Nahphah khung' has become 'Nafakhum', 'Nai Morong Oing' is now 'Debotakhum', and 'Kra U Makyak Tang' is referred to as 'Dim Pahar' (Egg Hill). However, we – the Indigenous people – hold these old names dearly because they are deeply connected to our identity. To preserve them, we raise awareness through Facebook, using the original names ourselves. We try to resist these changes by leveraging social media." [I7, Male]<sup>4</sup>

We found another important act of activism through Facebook. Despite the state's effort to label them as "Minor Ethnic Groups," [40, 50, 82] all of our participants steadfastly hold on to the term 'Adivasi,' which represents their identity, both online and offline. During our study, all the participants agreed that they wanted to be addressed as 'Adivasi' rather than 'Upojati' (Tribe). In summary, social media is extensively used as a tool by the Indigenous young

<sup>4</sup>Supplementary sources for the places mentioned here are provided in Appendix B.



population to protect and promote their culture, history, and identity.

**4.1.2 Cultural diversity, assimilation, and conservatism.** Our data shows that the young Indigenous community members in Bangladesh navigate a complex cultural landscape on social media where their sharing practices are intertwined with internal, external, and inter-community issues.

First, Indigenous social media users face criticism online from the majority Bengali community when they post about their cultural programs. In their opinion, this mainly occurs because the majority population tries to see the Indigenous practices through their own cultural and religious lens. Thus, from the majority's perspective, the Indigenous culture seems to be 'weird' or 'shameless' in many cases.

"The water festival – the Marma people call it 'Pani Khela' – is a traditional festival of the Marma community, and it goes viral every year. So, there is always controversy to it. Let's say when Pani Khela happens, people are indifferent to male and female identities – there is no gender difference there. Now when this goes viral, many members of the mainstream Bengali community judge it from their cultural standpoint. A typical comment would be: 'It is Haram (prohibited in Islam)'. I have seen many 'haha' reactions to those posts, sometimes people make comments such as 'What kind of culture encourages such shameless activities?' " [P8, G1, Female]

The young Indigenous community members are not only facing criticism from the outside people but also from their own community members when they try to assimilate into the mainstream Bengali culture. According to our participants, the older members of the Indigenous communities are much more conservative, and as such, they are not welcoming of the younger population adopting any cultural components of the mainstream Bengali community. For example, the Saree-Punjabi day is a special event in Bangladeshi universities, which is celebrated by undergraduate students wearing traditional Bengali outfits. As college-going, young Indigenous members join the festivity by wearing these outfits and posting those pictures on social media; they are condemned by their parents and other family members. One female participant described this incident in the following way:

"I, sometimes receive negative comments from my own community. For example, on Saree-Punjabi Day at our university, I wore a saree, and the people from my community criticized me, saying things like, 'You chose to forget your own culture and adopt another community's culture.' However, I wore the saree as a formality to maintain good relations with my classmates, and it does not mean that I have forgotten my own culture." [G3, P1, Female]

Another female participant faced criticism from her parents simply because she had posted pictures with her Bengali friends and classmates:

"At my university, during our Saree-Punjabi Day, I took some pictures with my Bengali friends and

posted them on Facebook. However, my parents asked me to delete them from my profile. They were worried because they felt insecure about me posting pictures with my Bengali friends, fearing that our community might not accept it." [G3, P2, Female]

These issues are further aggravated by the fact that there is a vast diversity among the cultural practices of different Indigenous communities, and each community is protective of its own practices. In some cases, members of one community criticize other community members' efforts to adopt their cultural elements. As one participant said:

"Although I am a part of the Tanchangya community, my mother is from the Chakma community. So I know about Chakma culture and their language. Once, I commented on a post by my Chakma friend in the Chakma language and a random person replied by asking why I commented in the Chakma language when I'm from the Tanchangya community. Another example involves one of my friends who shared a picture wearing Pinon and Hadi. She wore it in a non-traditional style and received negative comments, such as, 'Why did you wear it like this?' " [I11, Female]

These accounts highlight the broader inter-community issues and reveal that cultural conservatism prevails and the misunderstandings take place on several levels, ranging from the outsiders to their own community members to the members of other Indigenous communities.

## 4.2 Online threats

In this section, we describe the online threats and challenges encountered by our participants, including privacy violations, sensational journalism, and censorship. We also provide a detailed account of how online harassment and bullying are not isolated from offline incidents, rather they are interconnected and influenced by each other.

**4.2.1 Privacy violations and sensationalism.** According to our participants, the increasing availability of smartphones and the proliferation of social media, coupled with the fact that their hometowns are among the top tourist destinations in Bangladesh, have made their privacy increasingly vulnerable. This threat manifests in the non-consensual recording of videos and photos during cultural events and everyday life, which are then shared on social media. One participant shared:

"With the excessive use of social media, the privacy that the people of CHT once had is no longer there. Tourists often come here and portray the CHT from their own perspectives on social media, rather than allowing the Indigenous communities to represent themselves." [G1, P7, Male]

According to our participants, the portrayal of CHT tourist destinations without appropriate contexts on social media by Bengali tourists is a major concern for them. This issue worsens further due to the sensationalism of journalists. Our participants shared that during the Marma water festival, the photos, and videos of the

event were made public on social media, which were captured in tricky ways to attract more viewers.

“Social media makes our festivals visible to everyone, and in Bangladesh, tolerance is very rare. For example, the Water Festival is a part of the Marma culture, and we should respect that, right? The journalists also play a role here as the journalists covering the festival use eye-catching footage and captions to attract more viewers and create controversy.” [G1, P8, Female]

Our participants further said that this issue is not only limited to social media but also prevalent on YouTube videos, where Bengali content creators often inaccurately portray political and geographical issues related to the Indigenous communities. One of our participants showed us videos of such misrepresentation, which can be seen in Figure 2.

“If you search for ‘Andharmanik’ on YouTube, you will find tons of videos with titles like ‘Forbidden Area of Bandarban, Andharmanik’. However, it is not a forbidden area; the way they present it is misleading. Additionally, if you look at the thumbnails, you’ll notice that they often use images of African Indigenous communities to represent the people living there. This is both wrong and misleading.” [I7, Male]

**4.2.2 Censorship.** Almost all of our participants cited censorship as a major challenge as they are often hesitant to share their opinions, thoughts, and personal experiences on social media. We observed that this fear of censorship is more evident among the communities with relatively smaller populations. As one participant said:

“I am from the Indigenous community, I do vlogs online, especially on Facebook. But, you see, there are many things I experience in the CHT that I cannot share. If I share too much, I might be in trouble.” [I7, Male]

In another context, participants shared how their lives could be at risk if they speak out on social media about the struggles and injustices they face. They revealed that their lands were often invaded by the settler forces, with law enforcement agencies turning a blind eye to these violations. Moreover, participants expressed fear that sharing the truth about the settlers and the hardships endured by the Indigenous people could lead to abduction or even murder – two common tragic incidents in the CHT areas. One participant provided a detailed description of this issue:

“Last year, a post about our Buddhist temple was shared by a different Indigenous community in their Facebook group, with a caption in their language. I couldn’t understand it at first, so I asked about it later. The explanation I received was that the land where we were trying to build the temple had been invaded by a company aiming to develop their own settlement. In the caption, he wrote, ‘To preserve our land, we need to build this temple.’ At one point, the industry owners attempted to poison the hillside water stream, from which the people of that region get their drinking water, in an effort to force them to leave the land

so they could settle there. The authorities are supporting the settlers in this matter. They’ve even set fire to the area <sup>5</sup>. Although law enforcement agencies are aware of this, they do nothing to help us. We can’t even talk about these issues openly on social media, as we don’t have the freedom of speech. Speaking out would put us at risk of being abducted or murdered by the settlers.” [I7, Male]

The above responses indicate that freedom of speech is severely restricted for the Indigenous population. They feel endangered and are allegedly coerced into self-censorship by the law enforcement agencies themselves.

**4.2.3 Harassment and bullying.** Our participants expressed concerns about how online bullying and hate posts affect their daily lives by inciting hostility. Some of the participants shared their experiences of being harassed in public due to their ethnic identity, with social media playing a significant role in spreading these incidents widely. For instance, participants described how social media posts related to the Raozan incident <sup>6</sup> impacted their life. These posts primarily portrayed the Indigenous people as carnivorous, and various meme pages on Facebook and Instagram perpetuated this harmful stereotype. One participant provided a vivid explanation of this phenomenon:

“If you remember, an incident occurred last year —a murder in Raozan that went completely viral. The hatred against us actually peaked after this incident on social media. If you saw the news, yes, I agree that a murderer must be punished. But taking the murderer away from the police and beating him to death in front of the police is truly brutal and cannot be justified. Also, here they only took away the murderer, who was from the Indigenous community. This hatred was mainly fueled by social media. Many pages created content after content, misrepresenting and spreading hatred against our entire ethnic community. At that time, you know, many of our ethnic people were living in Dhaka and other parts of Bangladesh for education and jobs. They were harassed by the people around them because of what was spread on social media. Perhaps you don’t know this, but a boy at Chittagong University was brutally beaten by a Bengali student after this Raozan incident.” [G1, P3, Male]

A similar sentiment was reflected by another participant. In her case, she was asked about cannibalism multiple times by her university juniors, which was disrespectful to her. She also reported that other students threw trash at one Indigenous student at her university:

“My friend lives at her [University name anonymized] university hall. People threw bottles at her when she

<sup>5</sup>The leasing of land to Lama Rubber Industries Limited in Bandarban violates the Chittagong Hill Tracts Peace Accord and seeks to forcefully displace the Indigenous people from their homes [45, 69].

<sup>6</sup>Shibli Sadiq Hridoy, a 20-year-old college student from Raozan, Chattogram was abducted on August 23, 2023. The victim was killed over a protest against poultry theft, and his dismembered body was found on September 11, 2023. Rapid Action Battalion confirmed the murder but denied social media rumors of cannibalism, stating the body was simply discarded [34, 35].



(a) Incorrect text and visual misrepresentation in the YouTube Thumbnail [107]. The translated thumbnail text (top) “Where there is no touch of civilization” is incorrect and the inclusion of unknown community members is misleading.



(b) Misrepresenting the Indigenous communities by including unknown community members in the thumbnail (Creator's Face Hidden) [152]. Thumbnail text translates to ‘Forbidden Andharmanik’ whereas “Andharmanik” has limited access.

Figure 2: Misrepresentation in YouTube thumbnails (‘Andharmanik’ travel vlogs).

tried to get out of her room. People used to bully us by calling us ‘Upojati’. Also, I was harassed multiple times. Many of my friends and juniors asked me, ‘Apu (Sister), do you people eat human flesh actually?’ ” [G1, P8, Female]

Another participant shared that a boy spat on her on a busy road because of the Raozan incident:

“It was during the Raozan incident. I was returning from my university and it was late afternoon that day. I took a rickshaw to get home, but we got stuck in a traffic jam for a while. During that time, a boy on a bicycle approached and saw me. He then spat on my hand and said, ‘You eat human flesh.’ Although the rickshaw puller protested, it happened in public and on a busy road.” [I6, Female]

These responses clearly demonstrate that social media posts and rumors create real threats in the daily lives of the Indigenous population, including physical assault and harassment. Our participants further described how small rumors spread on social media can fuel widespread anger and lead to devastating results in the real world. One such story was shared by a participant:

“A few years ago, an incident occurred in my district where a Muslim biker – who was providing ride-sharing services – was murdered. His last passenger was from the Indigenous community. As the news spread on social media, it was rumored that he had been killed by that passenger. This led to widespread anger, and two or three Indigenous villages were set on fire. However, a later police investigation revealed that the biker was actually killed by his Bengali friend, who murdered him and stole his bike.” [I4, Male]

We also learned about multiple incidents of harassment and bullying, where the perpetrators were faculty members at renowned universities in Bangladesh. Our participants revealed that they experienced harassment, even in classrooms and during assessments, solely because of their ethnic identity. They recounted instances

of racist remarks from their instructors and shared experiences of discriminatory treatment in assessments:

“At my university, one of my faculty members bullied me for being part of the Indigenous community, and for being a student under the quota system. After finishing his lecture, he pointed a laser pointer at me and said, ‘I think that boy hasn’t understood anything. He’s from the quota system.’ Another faculty member deducted marks from my project, even though I had submitted the same work as my Bengali friend. Additionally, a different faculty member remarked, ‘Have they ever seen a computer in their life?’ All of this stemmed from social media, where last year, some people mocked the Indigenous quota, and it went viral.” [I5, Male]

Another participant shared how she had been mocked due to the quota system:

“When I was in my first year of university, a classmate abruptly asked me, ‘You guys get admission through the quota system, right? And if I marry a Chakma girl, will my children get the quota too?’ This kind of indirect bullying is very common. Some of my seniors faced harassment during job interviews, with remarks like, ‘You got in through the quota system, so you didn’t have to study much.’ ” [I11, Female]

Besides all this, ethnic slurs directed toward our participants have been a regular phenomenon in their lives. In some cases, they reported that they take it normally now and do not even get hurt by these racist comments. In their opinion, social media plays an important role in this regard:

“Some Bengali Muslims – out of ignorance – believed that we were responsible for the genocide of the Rohingya Muslims in Myanmar, mainly because social media portrayed us as having facial similarities with the people from Myanmar. I recall one incident on

my way to work when an older Muslim man confronted me and used harsh slurs. I believe he didn't realize that I am not a part of the Arakan community in Myanmar." [I10, Male]

Notably, most of our participants experienced being called ethnic slurs (for example, *ching chong*, both online and offline. A typical response from a participant is as follows:

"When I go to market, people tease us like this by saying 'Chung chang'. They refer to our facial similarity to the Chinese people. So, they refer to us as Chinese, or even Korean or Japanese. Sometimes, let's say, when I am going to buy something, people ask 'Are you from China?'" [G1, P8, Female]

To summarize, social media posts create misinformation and false stereotypes that often lead to real-world incidents, including physical harassment.

### 4.3 Mitigation Strategies

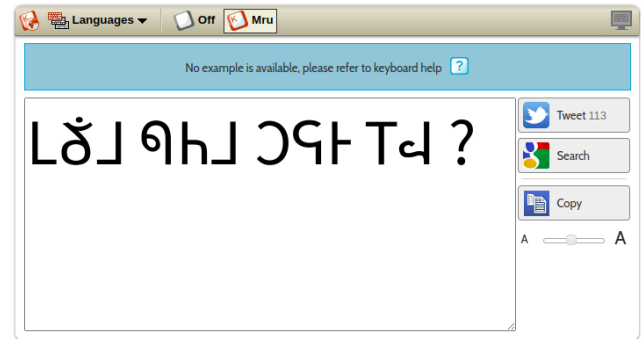
To mitigate the issues mentioned above, the Indigenous community members have adopted collective offline measures, including prohibiting outsiders and cameras from large cultural events. While these actions help mitigate the issues to some extent, these are not enough. To further protect themselves online, members of the Indigenous community employ social ciphering techniques to maintain their safety. Using their distinct language as a ciphering tool, the Indigenous people communicate in their mother tongue on social media, creating a barrier that outsiders cannot easily penetrate. This practice of using their language or local dialect during online interactions allows them to discuss sensitive topics and shield themselves from harassment and bullying.

"We also use it (our native language) on social media. For example, when my other Indigenous friends mention me in the comment section of a controversial or provocative post to draw my attention, I respond using our language. I do this so that others cannot understand and verbally attack us." [G1, P9, Male]

At times, they avoid specific terms that might trigger negative reactions, especially in the context of religious practices and food habits, which are often not accepted by the mainstream Bengali population. For instance, one participant shared that they avoid using the word "swine" and instead use their native term for it. This adjustment reflects the cultural sensitivity surrounding pork, which is prohibited in Islam [166] – the dominant religion in Bangladesh. Moreover, they use technology to enhance their privacy, such as dedicated keyboards and websites for writing in their language (depicted in Figure 3).

"Sometimes, we don't use the word 'swine' to refer to pork. Instead, we use our local dialect, which helps protect ourselves from getting bullied. In certain situations, we also use our native language to communicate. For example, if we're discussing a festival where we drink alcohol or eat pork, we would write the post in our language. We have our own keyboard and a website where we can write in our language. Sometimes we use English letters to represent our language.

For instance, 'Yung tak cha?' means 'How are you?' in our language, but people outside our community wouldn't understand it. We use this technique to talk about sensitive topics like politics and culture." [I10, Male]



**Figure 3: Online English to 'Mro' language translator [111]. "How are you?" is translated using the Mro alphabet.**

Beyond social ciphering through text, we found that many participants extended this practice to voice messages on social media. During the Quota Reform Movement, participants reported using voice messages in their native language to alert others in the same university hall about potential attacks. This approach ensured that the messages would remain incomprehensible to outsiders.

"Indigenous women in the [Anonymized] Hall (Female Student Dormitory) Messenger group shared voice messages in the Chakma language to warn others about possible attacks in specific areas. This was done to ensure that others couldn't understand the message." [I12, Female]

Besides social ciphering, these communities leverage some coping mechanisms to dodge the privacy threats and their aftermaths. We found that these people mostly try to use avoidance as a coping mechanism. This practice is even extended in offline settings. For example, some of our participants reported that they avoid public transport as much as possible. They think that their distinctive facial structure would make them easily recognizable, and as such, they try to take measures to hide them.

"I don't engage much in anything, both online and offline, because I don't want to get bullied. I generally take rickshaws or CNGs to travel; I avoid public buses and other forms of public transport. I also wear a mask (surgical mask) to hide my face, so that people can't identify me as being Indigenous." [I2, Male]

Another mitigation strategy reported by our participants is to get involved in constructive discussions to clarify the misconceptions regarding their culture and lifestyle. One of the participants shared that he creates short videos and uploads them on social media, but whenever he receives any negative comments from the Bengali people, he tries to educate them in a constructive way:

"In many of my vlogs, I sometimes receive hateful comments when I showcase our culture or traditions.

However, I try to respond to those comments with logical answers and make an effort to educate them. In many cases, they realize they were wrong and then apologize for their comments, which is a positive outcome. If they come to understand us, it's a good thing. I believe that every content creator from the Indigenous community should also practice this approach." [I7, Male]

In addition to the mitigation strategies, we found instances where social media has helped our participants in their academic lives and education. One participant shared the following story:

"Social networking sites were incredibly helpful during my admission days. I received a lot of support from our community groups. Some of our senior brothers dedicated their time to teaching many students like me for free. Their guidance was invaluable and helped me immensely." [I1, Male]

Furthermore, social media has been demonstrated to be particularly effective in a few cases, including saving lives of the community members. Social media is used extensively when any community member goes missing. While traditional search methods take longer time due to the hostile geographic feature of CHT, social media offers a lifeline in this regard:

"Technology is really helping us in many cases, like one of our community members went missing a few days ago. In hilly areas, it is almost impossible to find someone solely by relying on traditional methods. So, in this case, we posted his picture on Facebook and shared it with our community group. Later, that person was found. Here I cannot imagine finding him so quickly without the help of technology." [I7, Male]

All of these findings reveal that the young Indigenous community members not only use a diverse set of mitigation techniques to protect themselves on social media, but they also adopt innovative methods to overcome the unique local challenges and thrive in their social and academic lives.

## 5 Discussion

In the previous section, we documented a set of online activities conducted by young Indigenous social media users in Bangladesh. We provide a situated understanding of these practices in relation to their own culture, rituals, and beliefs, as well as the local sociopolitical conditions in Bangladesh. Our findings delve into many aspects of the technological intersection with the Indigenous CHT people of Bangladesh, who are marginalized both in online and offline spheres. Some of these issues such as tourism, fake news, and misinformation, forced migration, and search and rescue missions in hilly areas, are unique challenges due to the geographical location and the history of this area. By analyzing their concerns, constraints, protection mechanisms, and dependency on technology to raise awareness among themselves and others, we offer a few recommendations and connect our findings to the broader issues in HCI.

### 5.1 Impression Management

We begin by highlighting the design implications of our work. According to Goffman's concept of "impression management", social life is a dynamic process where humans constantly try to control the impressions that others have about them [77]. In this process, an individual puts up a more carefully improvised version of self – called the "front stage" – to manipulate how they are perceived to gain acceptance from others, i.e., the audience. The other side of Goffman's theory about self – the "back stage" – is associated with a more private understanding of the self of an individual in the absence of a social setting. With the advent of social media as a "networked public" [27], impression management becomes considerably more challenging as different communities and norms coexist on these platforms.

Our data reveals that young Indigenous social media users in Bangladesh encounter a range of issues regarding impression management. While these users have a strong sentiment regarding the protection and promotion of their own culture, they also aspire to gain acceptance from their Bengali friends by assimilating with the mainstream culture. As can be seen from our data, this becomes a challenging task because when they put pictures with outfits like sarees that are not representative of their own cultural heritage, these young users are reprimanded by their family members at home. On the other hand, outfits such as saree and punjabi are essential apparatuses for these users to improvise a carefully designed personality that represents their willingness to assimilate with the mainstream Bengali culture. At the confluence of this duality, these users struggle to find a middle ground as they need to "perform" differently for different sets of audiences at the "front stage". We advocate for the necessity of implementing fine-grained privacy settings for these marginalized community members that go beyond the straightforward design of customized friend groups, profile locks, and multiple profiles [64, 190].

Prior work with the marginalized and stigmatized communities in Bangladesh has documented that the members of those communities use techniques such as disguising, hiding, layering, and other similar mechanisms [31, 88, 162, 178–180]. This brings to the fore the concept of "personalization" in HCI as these community members need to navigate around multiple carefully curated online "selves". For example, any design intervention that helps to determine which identity is more conducive for impression management in a particular context and how they switch to that identity smoothly would make such transitions easier for them.

### 5.2 Aftercare, Shared Meaning-making, and Shielding

Beyond personalization, we propose a few other recommendations to create a safe and comfortable environment for Indigenous social media users. Our findings demonstrate that these users face harassment and bullying in real life based on the rumors and misinformation originating from social media. We advocate for the establishment of continuous safety and comfort measures that would provide assurance to these marginalized users. In this regard, we emphasize aftercare and recommend that social media platforms add features similar to Indigenous practices, such as "healing circles" [46, 92, 176] that have been demonstrated to be effective for these

communities. These circles can be utilized to create unity, foster a sense of collectiveness, and build a sense of belonging among the Indigenous community members. Prior works on theology and mental health have highlighted the importance of faith leaders in mediating these circles [141], but community leaders who have social acceptance and trust among the members can also act as moderators in this case. Under their supervision, these circles can serve as a resource for learning and collectively addressing online and offline bullying and harassment, as well as functioning as a support center for healing from the associated trauma and fear.

Second, we found that there exists a lot of misconceptions among the mainstream Bengali population regarding the cultural practices and rituals of the Indigenous communities. As our data shows, this lack of cultural knowledge creates prejudices and reinforces stereotypes. However, some of our participants also reported that they were successful on a limited scale in educating the mainstream population through meaningful and constructive conversations. This highlights the importance of inter-community connections, knowledge-sharing, and shared meaning-making of cultural practices. The recent HCI literature on migration and inter-faith learning can be helpful in this context. For example, the AR/VR technology has been effective in promoting intercultural knowledge sharing [161], inter-faith learning, and empathy building [157] in multicultural environments. These technologies can be utilized to establish a sustainable process of shared meaning-making between the Indigenous community and the mainstream Bengali population.

Third, social media platforms should be more proactive in protecting these marginalized users. Although “shielding” could be used as a potential countermeasure where the posts of minority communities would be shielded from undesired exposure to “others” who might misinterpret them, we argue, based on our findings, that shielding might limit many of the positive benefits obtained by our participants through the positive use of social media. Any platform intervention should address this trade-off to maximize the benefits while minimizing the risks for the minority communities.

### 5.3 Otherness, Identity, and Resilience

We found a more layered perception regarding the issue of “otherness” in our findings. As our data shows, language plays an important role in the social media activities of the Indigenous population. We found several instances where language is an important technique for them to protect their identity from “others”. These findings can be connected to a rich body of work around colonialism and otherness. We build on the definition of “otherness” by the famous postcolonial scholar Edward Said [163, 164], who argues that a person’s knowledge is shaped by their own culture, which makes it difficult to comprehend the cultural phenomena that take place within a foreign culture. As documented in our findings, several participants reported their frustrations regarding the way the photos taken at different locations around the CHT are shared on social media, where the caption captures inappropriate or partial contexts. These photos and other artifacts are apparently “open” to outsiders for viewing, capturing, and posting on social media, and yet their meaning is closed by cultural interpretation, of which language is a very important part. At the same time, we

saw several instances where social media was portrayed as a mediator of positive influence by our participants. This suggests that while the Indigenous community members are open to the idea of presenting their cultural artifacts on social media, they resist against the inaccurate contextual representation of those artifacts. We propose implementing an AI-based system capable of automatically detecting the photos associated with the cultural artifacts of the Indigenous community, and if required, capable of providing suggestions for the caption that are contextually correct and more inclusive.

The politics of language and knowledge construction goes far beyond posting pictures on social media platforms. As can be seen from our findings, these community members self-identify themselves as “adivasi”, which is distinct from their official identity of “minority ethnic group”, as recognized by the Bangladesh government [6, 50]. Our participants use social media both to resist against this external labeling and to promote their own identity. The responses from our participants demonstrate that in doing so, they face repercussions both in virtual and real lives. Technology in general, and social media in particular, acts as an amplifier in this regard, where in many cases, situations escalate due to the arguments originated, or the contents posted on social media. Thus, the role of technology as an amplifier is reflected in our findings.

### 5.4 Privacy and Social Cipherng

Prior work with the marginalized and Indigenous community members in Bangladesh has demonstrated how these populations utilize social stenography or social cipherng to exchange sensitive and confidential information between them in the presence of others [88]. In that work, the researchers documented how the beauty parlor workers in the capital city of Dhaka – those who come from diverse ethnic backgrounds – use their native languages when working in the presence of the clients to offer constructive feedback to each other on the fly without unnecessarily worrying their clients. Social cipherng is used in many other social and professional contexts, as reported in that study. Our work further augments this finding and reveals that in many cases, social cipherng is essential for the survival of these marginalized communities. This language-based cipherng can easily be beaten by an adversary through translators but to the best of our knowledge, there is no available online translator including Google Translator for the Indigenous languages in Bangladesh. Notably, our participants described that they use specially designed phonetic keyboards and websites to exchange sensitive and confidential information with their peers. In fact, there is a dedicated project on GitHub [112] related to designing different types of keyboards for Indigenous communities. We believe that the HCI community can intervene in this regard by applying the mechanisms of adversarial design as proposed by DiSalvo [56]. Our work, therefore, joins the growing body of HCI literature in the Global South regarding privacy protection mechanisms of the marginalized communities [87, 88, 162].

### 5.5 Indigenous experiences in the Era of Social Media

Beyond these lessons, our work contributes significantly to Indigenous HCI [123] by bringing to the fore the dual role of social media.



From our data, it can be seen how social media creates a positive impact, ranging from preserving cultural artifacts to offering a life-line for these marginalized communities. However, these effects exist alongside broader concerns such as ‘gentrification’ and the ‘commodification of culture’, as described by Sajib et al. [165], and the ‘colonial dynamics’ discussed by Alvarado et al. [7]. Our participants expressed concerns over how their cultural and religious practices, as well as daily lifestyles, are misunderstood or criticized online, reflecting themes of ‘microaggressions’ outlined in Guerrero et al. [79]. Gender inequality further compounds these challenges as our findings reveal that Indigenous women face significant hurdles, even in simple online interactions such as posting pictures with Bengali friends. These restrictions connect feminist HCI with Indigenous HCI, emphasizing the need to mitigate ‘gendered constraints’ while promoting safe and equitable online spaces.

By analyzing these interwoven themes of culture, identity, gender, and privacy, our study contributes to Indigenous HCI and advocates for design interventions that address both the systemic challenges and cultural aspirations of these communities. These insights pave the way for inclusive and culturally sensitive technologies that not only empower Indigenous populations but also safeguard their unique identities in the era of social media.

## 6 Limitations and Conclusion

This study has highlighted the advantages and disadvantages of social media for the Indigenous young CHT community members in Bangladesh, offering insightful information about the complicated relationship between social media and their way of life. Our work underscores the unique vulnerabilities Indigenous groups face in cyberspace, which are further worsened due to their social marginalization. While adopting social media platforms has provided new opportunities, it has also made them more vulnerable regarding privacy, censorship, and misinformation. By focusing on this duality, we have proposed several recommendations to enhance the digital experience of these marginalized users.

The scope of the study was limited due to various challenges encountered, even though we tried to gather a diverse range of data. Besides, unprecedented political turmoil and natural disasters took place during the time of our research, which made it quite impossible on our part to conduct interviews in person at the CHT. Since we have focused on young, college-educated population, this may have limited the diversity of perspectives. The experiences described by our participants do not capture the comprehensive view of a whole community. Additionally, we deliberately refrained from presenting certain data that could be harmful to both parties involved. Therefore, we could not go much deeper into the concept of “fear and censorship” than we have discussed in the work. Since our study asked participants to describe their experiences retrospectively, we gave them a few scenarios that could act as cues to elicit stories about past experiences. We acknowledge that this might have led to the possibility of omission of discussion of experiences that were not cued. Finally, we only reported Facebook usage as other social media platforms are relatively less popular in Bangladesh [11, 49], which has also been confirmed by our participants.

In future research, we intend to address these limitations by including a broader range of participants, particularly those with limited technological knowledge or formal education. This will offer us a better understanding of the perspectives of the overall Indigenous CHT population. Taken together, this research contributes to the growing discourse on Indigenous HCI, HCI4D, and ICTD, emphasizing the importance of culturally informed and inclusive approaches to technology design.

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## A Interview Guidelines

While the questions were asked, we asked them in Bengali, and they are here translated. We refrained from using anything that might hurt their cultural sentiment and feelings.

### A.1 Basic Demographic Information

- (1) Which community are you from?
- (2) Where are you living now?
- (3) What is your current job?
- (4) Which social media platforms do you use?
- (5) From when did you start using social media?
- (6) How active are you on these platforms?
- (7) (Prompt if relevant) Do you comment or post on social media?
- (8) (Prompt if relevant) Are you active in your community-based pages/groups?

### A.2 About Water Festival

- (1) In last year (2023), during the water festival a video went viral on Facebook where many people did vulgar comments about the cultural festival, have you seen that?
- (2) (Prompt if relevant) Can you share some comments or posts that caught your attention?

- (3) (Prompt if relevant) How did you feel about those comments?
- (4) (Prompt if relevant) Can you share any incident related to this that led to physical or online harassment with you ?
- (5) (Prompt if relevant) How do you take protective measure against this kind of harassment?
- (6) (Prompt if relevant) This year the place for annual Water Festival was changed, was that a defence mechanism?
- (7) (Prompt if relevant) As you faced some negative impacts due to observing your own traditional festivals, does it affects your spontaneous participation in any upcoming festivals?
- (8) (Prompt if relevant) As I know, the viral video was captured from an angle to make it more catchy. What do you think about that? Does it happen always here?

### A.3 About the Raujan murder incident

- (1) Last year, in Raujan, a Bengali boy named Hridoy was killed by indigenous people, and there was a rumor that the boy's flesh was eaten by them. This incident shocked the entire internet, leading to harassment and bullying of indigenous people online. How did this incident affect you?
- (2) According to a Facebook post, an indigenous girl was spat on by a Bengali and taunted with the words "You people eat human flesh, you are not human." Have you experienced any similar incidents where you were physically bullied?
- (3) (Prompt if relevant) Do you think that social media played a role in this?
- (4) (Prompt if relevant) Did you take any protective measures to safeguard yourself?
- (5) Following the incident, many meme pages on Facebook posted various memes bullying the indigenous community. Did these memes affect you or your online presence?
- (6) Did the bullying and harassment have any negative impact on your workplace or educational institution?
- (7) Have you faced any embarrassing situations due to these online events related to the incident?
- (8) As we know, following the incident, many leading newspapers and news channels in Bangladesh published clickbait news and YouTube videos to gain more views, often distorting the real incident. Did this news affect your online or offline presence?

### A.4 Quota issues

These questions were mainly asked to students who are studying in universities and have benefited from quota advantages.

- (1) This year, during the Bangladesh Medical Admission test, a Facebook post went viral comparing an indigenous student with a Bengali student. The post highlighted that the indigenous student was admitted to medical college due to the quota system, despite having lower marks than the Bengali student. This post led to numerous hateful comments against indigenous students. Did you encounter any of this negativity?
- (2) Have you ever been bullied by your faculty members or friends because of benefiting from the quota system?
- (3) (Prompt if relevant) Do you think that social media fueled this issue?

- (4) (Prompt if relevant) Did you take any preventive measures to help others understand the situation?
- (5) During the recent Quota Reform movement, did you face any challenges or inconveniences due to having a quota, even though the protest was not specifically against the 'Indigenous Quota'?

### A.5 Yellow Journalism

- (1) In the previous Raujan incident, we discussed how leading news channels and newspapers used clickbait and fabricated stories to gain more views and readership. Can you share any other incidents where you experienced something similar?
- (2) Have you encountered anything like this on social media?
- (3) (Prompt if relevant) What were the consequences of this type of news?
- (4) I have noticed that in many social media vlogs, your culture is not accurately represented. What are your views on this?
- (5) In many posts, people highlight the fact that indigenous people consume alcohol and pork, which is not widely accepted in the majority of Bangladeshi culture. Have you faced any negative consequences due to this?
- (6) In many YouTube videos, indigenous people are misrepresented. For example, some thumbnails feature images of African tribes instead of Bangladeshi indigenous people. Have you come across this?
- (7) (Prompt if relevant) Do you think that this kind of misrepresentation has any negative impact on your reputation?
- (8) Do you take any preventative measures to counteract these misrepresentations and raise awareness?
- (9) (Prompt if relevant) Can you give us any examples?

### A.6 Conservative about culture

- (1) From my personal experience , I have seen that the indigenous people are conservative about their culture both online and offline. Am I right?
- (2) (Prompt if relevant) Can you explain why are you conservative?
- (3) (Prompt if relevant) Does cyber bullying play any role in your online conservative mindset ?
- (4) Do you feel free to post pictures of your own culture and dresses?
- (5) Do you feel free to post about your problems online?

### A.7 Social Ciphering

- (1) Do you use your mother tongue (e.g., Chakma language) to post or comment on sensitive topics on Facebook?
- (2) (Prompt if relevant) Do you do this to keep the post unreadable for people outside your community?
- (3) (Prompt if relevant) When writing posts or comments, do you use your own script, or do you use English phonetic spelling?
- (4) (Prompt if relevant) Do you use any special software, keyboard, or website to write in your own script?
- (5) (Prompt if relevant) Can you show me an example of this?

- (6) Within your community, do you have any special dialect or code words, like using one word to refer to something else, to keep it encrypted from outsiders?
- (7) (Prompt if relevant) Can you give us an example of such words?

#### **A.8 Positive Sides of Social Media**

- (1) Do you think that social media is helpful in raising awareness among the general public about your culture and history?
- (2) Do you use social media to increase awareness about your culture and history?
- (3) (Prompt if relevant) Can you give me an example?
- (4) (Prompt if relevant) What kind of feedback do you receive? Does it help create awareness among the general population?

- (5) During the 'Student Against Discrimination Movement' in Bangladesh, many people became more interested in learning about your community and its history. Do you think social media is helping to spread awareness and positivity?
- (6) What are your suggestions? What can the government and the general public do to increase awareness?

#### **B Places and Locations Mentioned in the Paper**

- (1) Keokradong/Kyaka krah tang
- (2) Nafakhum/Nahphah khung
- (3) Debotakhum/ Nai Morong Oing
- (4) Dim Pahar/ Kra U Makyak Tang

## C Basic Background Information of Jumma people of CHT

**Table 3: General information about indigenous communities in CHT. (\*TB = Tibeto-Burman Language Family, M = Men, W = Women).**

Community	Population [139]	Language	Dress	Religion
Chakma	483,229	Chakma	Dhuty(M), ‘Pinon’ (W), ‘Hadi’(W), ‘Hobong’(M-W)	Buddhism
Marma	224,261	Marma	‘Thumbui’ (W), ‘Angi’ (W), ‘Dayah’(M)	Buddhism
Tripura	156,578	Kokborok	‘Rignai’, ‘Risa’, ‘Rikutu’ [65]	Hinduism
Tanchangya	45,972	Tanchangya	‘Keboi’(W), ‘Pinon’(W), ‘Habong’(W) [18]	Buddhism
Lushai	380	TB	‘Puan’(W) [127], ‘Korchung’ (W), ‘Korchur’(M), Puanbi(M) [17]	Christianity [22]
Khumi	3,780	TB	‘Lupao’ (Turbans), ‘Bichunika’ (W), ‘Kono’ (ear rings), ‘Sang-eie-pong’ (Head Ornaments), ‘Lakao’ (Leg Ornaments) [70]	Animism, Krama, Christianity [14]
Chak	3,077	TB	‘Kotung Pangre’ (M-Dress, Dhuti), ‘Apong’ (M-Turban), ‘Nafi’ (W-Dress, Skirt), ‘Rangkeng’ (W-Dress)[16]	Buddhism [16]
Khyang	4,826	TB	‘Ukh’ (M-Dress), ‘Bong’ (M-Turban), ‘Baiu’ (W-Dress), ‘Kel-Kah-Lu’ (Leg Ornaments), ‘Luk-Hu’ (W-Turban) [71]	Animism, Buddhism, Christianity [71]
Bawm	13,193	Bawm (TB)	‘Laikawr’(M), ‘Rentak’(M), ‘Kawrechi’(W), ‘Puan’(W) [9]	Christianity
Pankhua	1,857	TB	Pirhan [147]	Christianity
Mro	52,455	Mro	‘Wanglai’ (W-Dress), ‘Kong-ar’ (M-Ornament), ‘Ramcheng’ (W-Ornament) [72]	Animism, Krama, Buddhism, Christianity [3, 72]

## D Demographic details of participants

**Table 4: Details of the group discussions.**

Group Number	Total Participants	Gender Ratio	Community
1	9	Male: 8, Female:1	Chakma (5), Chak (1), Tripura (1), Khumi (1), Mro (1)
2	2	Male: 0, Female: 2	Chakma (1), Bawm (1)
3	5	Male: 1, Female: 4	Chakma (1), Marma (4)
4	2	Male: 1, Female: 1	Tanchangya (2)



**Table 5: Demographic information of participants. \*Three districts - Rangamati, Khagrachari, and Bandarban constitute the CHT region.**

Group Number	Participant Number	Community	Gender	Age Group	*District
<b>Group Interviews</b>					
1	1	Chakma	Male	20-25	Rangamati
1	2	Tripura	Male	20-25	Khagrachari
1	3	Chakma	Male	20-25	Khagrachari
1	4	Chak	Male	20-25	Bandarban
1	5	Khumi	Male	20-25	Bandarban
1	6	Chakma	Male	20-25	Rangamati
1	7	Mro	Male	20-25	Bandarban
1	8	Chakma	Female	20-25	Khagrachari
1	9	Chakma	Male	20-25	N/A
2	1	Chakma	Female	20-25	Dhaka
2	2	Bawm	Female	20-25	Bandarban
3	1	Marma	Female	20-25	N/A
3	2	Chakma	Female	20-25	N/A
3	3	Marma	Female	20-25	N/A
3	4	Marma	Female	20-25	N/A
3	5	Marma	Male	20-25	Khagrachari
4	1	Tanchangya	Male	20-25	Bandarban
4	2	Tanchangya	Female	20-25	Bandarban
<b>Individual Interviews</b>					
N/A	I 1	Chakma	Male	20-25	Khagrachari
N/A	I 2	Chakma	Male	20-25	Rangamati
N/A	I 3	Chakma	Female	20-25	Khagrachari
N/A	I 4	Chakma	Male	20-25	Khagrachari
N/A	I 5	Chakma	Male	20-25	Khagrachari
N/A	I 6	Tripura	Female	20-25	Khagrachari
N/A	I 7	Marma	Male	30-35	Rangamati
N/A	I 8	Mro	Male	20-25	Bandarban
N/A	I 9	Mro	Male	20-25	Bandarban
N/A	I 10	Mro	Male	30-35	Rangamati
N/A	I 11	Tanchangya	Female	25-30	Rangamati
N/A	I 12	Tanchangya	Female	25-30	Rangamati