



Studying Multi-dimensional Marginalization of Identity from Decolonial and Postcolonial Perspectives

Dipto Das

dipto.das@colorado.edu

University of Colorado Boulder

Boulder, Colorado, United States

ABSTRACT

My research contributes to understanding how colonialism marginalized people in the Global South across various dimensions of identity (e.g., race, gender, sexuality, religion, caste, nationality), how sociotechnical systems reinstate colonial structures and values, and how computing platforms both support and impede colonially marginalized communities' identity expression and performances. Building on decolonial and postcolonial perspectives with a historicist sensibility, my mixed-method empirical studies on various sites (e.g., Quora, YouTube) highlight users' agency, the role of content moderation, algorithms, and online communities in the inclusion of culturally diverse native Bengali identities. In doing so, my work informs the broader social computing literature on identity, content moderation, fairness and bias, social justice, and ICTD.

CCS CONCEPTS

• **Human-centered computing** → **Collaborative and social computing**; **Human computer interaction (HCI)**.

KEYWORDS

identity, marginalization, decolonial, postcolonial, online communities

ACM Reference Format:

Dipto Das. 2023. Studying Multi-dimensional Marginalization of Identity from Decolonial and Postcolonial Perspectives. In *Computer Supported Cooperative Work and Social Computing (CSCW '23 Companion)*, October 14–18, 2023, Minneapolis, MN, USA. ACM, New York, NY, USA, 4 pages. <https://doi.org/10.1145/3584931.3608920>

1 INTRODUCTION

Identity has been central to social computing scholarship and public initiatives toward diversity and inclusion. People's identity—how they see themselves and want others to see them as social beings [19], is both an individuated and social construct and is often shaped by their membership in different groups [36]. Identity expression as parts of various social groups is not fixed but co-constructed through everyday performances, values, and practices of these communities [5]. While people want to express and enact

their identities freely and without harm, they are often marginalized or pushed to the periphery of society based on their identity across various dimensions such as race, gender, language, sexual orientation, nationality, religion, caste, educational and socioeconomic status [16]. Human-computer interaction (HCI) and computer-supported cooperative work (CSCW) researchers have studied technology's role in supporting and impeding the identity expression of marginalized communities, based on race, gender, and sexual orientation, predominantly in Western and Global North contexts [21, 28, 43], whereas a dearth of CSCW literature focuses on identity in the Global South. What is also often missing in these studies is the genealogy of how certain identities have been normalized and prioritized at the cost of marginalizing others. In recent years, scholars have highlighted the importance of adopting a historicist sensibility to inform CSCW research [37]. Historicism can give us a deeper understanding of how perceptions of different identities have developed in our societies and how different communities are marginalized based on their identity. Colonialism refers to the policies and practices where external powers migrate to other lands and alter the social, cultural, political, and economic structures and, thus, identities of local and indigenous populations [30]. Given its impact on myriad dimensions of human identity like race [17], gender [31], sexuality [32], religion [6], caste [35], nationality [7], and diaspora [12], I argue that studying marginalization of identity in relation to colonialism would help understand the sociohistoric entanglement of marginalized identities, especially in the Global South, with various emerging forms of technology—from human-classification schema to modern computing spaces. Scholars have highlighted colonial impulses of computing technologies [2, 15] and how by virtue of being designed in Western contexts, as sociotechnical systems migrate and travel to other, especially non-Western contexts, they reanimate colonialism by inflicting Western values and ways of being on others [25]. Therefore, postcolonial scholars who study the impacts of colonization and decolonial scholars who explore ways to resist Western supremacy over its colonized subjects have conceptualized colonization as the long-term, normalized, and often invisible mechanism of cultural imposition and marginalization of people's identities based on race, ethnicity, nationality, religion, and language. Considering both sociohistoric and technological dimensions of colonial influence on identity, my research agenda is guided by the following three broad questions.

- **RQ1:** How do the indigenous people experience the colonial influences on their identity?
- **RQ2:** How can technology *support* colonially marginalized communities' identity expression and performance?
- **RQ3:** How can technology *impede* colonially marginalized communities' identity expression and performance?

Permission to make digital or hard copies of part or all 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).

CSCW '23 Companion, October 14–18, 2023, Minneapolis, MN, USA

© 2023 Copyright held by the owner/author(s).

ACM ISBN 979-8-4007-0129-0/23/10.

<https://doi.org/10.1145/3584931.3608920>

In my Ph.D. research, I study the online practice of the Bengali communities who are native to the Indian subcontinent. First, by using historical materials, I seek to understand how colonial power marginalized Bengali culture and shaped Bengali identity. Second, I explore whether and how online community spaces (e.g., video-sharing and Q&A sites) provide opportunities for colonially marginalized Bengali communities to decolonize—negotiate and think about their identities to resist colonial influences on their indigenous selves. Third, I critically study whether and how the Bengali communities face exclusion and further marginalization in these spaces by different sociotechnical components of these platforms, such as algorithms, governance, and content moderation.

2 RESEARCH APPROACH AND METHODS

My research area is at the intersection of HCI, CSCW, social computing, and ICT for development (ICTD). Particularly, I draw from the literature on decolonial and postcolonial computing, identity studies, and online communities to inform my work. Over the years, a significant body of CSCW and HCI research has studied the ways people perform their identity in computing spaces, what constitutes digital identity, and how technology supports and impedes the expression of marginalized identities. However, many questions remain unanswered about the identity in computing spaces. Only a few CSCW research have studied indigenous and colonially marginalized identities [3, 10, 41], especially in the context of the Global South. In a site of prolonged colonization such as the Indian subcontinent, with diverse identities, conceptualizing colonization and its impacts, indigeneity, nationhood based on language, religion, geopolitical boundaries, etc., poses increased complexity that demands a critical and nuanced understanding of social, historical, cultural, and political factors. Moreover, as a decolonial effort, I actively turn to the scholarship from the Global South in HCI and beyond to critique, interrogate, and augment existing computing literature which often presents West-centric perspectives [2].

To address my research questions about colonization's impact on local and indigenous identity and the ways in which technology supports and impedes the colonially marginalized communities' identity expression and performance, I take a multi-stage approach that includes qualitative methods like semi-structured interviews and trace ethnography and quantitative methods such as natural language processing (NLP) and experiment design. Through my multi-sited investigation, I seek to understand the Bengali users' experience with sociotechnical systems of various scaffolds and affordance. Through qualitative and critical analyses of interview and trace data and quantitative examination of experimental systems evaluation data, my work contributes to both theoretical underpinnings of marginalized identities in CSCW and HCI literature as well as practical actionable implications for design, governance, fairness, and inclusion in online communities. Inspired by postcolonial computing's capacity to highlight users' agency and generative model of cultural encounter and decolonial focus on rejecting computing's colonial impulse, I view these perspectives to be instrumental when examining how colonially marginalized communities across various dimensions express and perform their identities on different online platforms.

3 RESEARCH OVERVIEW

The following studies address my broader research questions (**RQs 1-3**) around collaborative and individual identity work, expression, and performance of colonially marginalized local and indigenous people in contexts of online platforms of different sociotechnical scaffolds (e.g., human and automated content moderation) and affordances (e.g., textual and multimodal communication).

3.1 Completed Works

My work starts by studying Bengali users' interaction on Quora, a popular Q&A site that has a dedicated forum for Bengali speakers. Following a trace ethnography approach [20], I studied users' interaction through textual communication and their experience with the platform's governance.

3.1.1 Studying Collaborative Identity Decolonization as Reclaiming Narrative Agency. Guided by a theoretical framework on processes of decolonization [29], I studied how Bengali Quora users talk about their identity in relation to their colonial past. In this work, I explored how South Asian Bengalis engaged in collaborative identity decolonization work on the platform to reclaim narrative agency [10]. We found how Bengali users collectively conceptualize the impacts of colonization and mourn through speculative identity play to reaffirm their local and indigenous ways of being. The paper presented how Bengali people of different and opposing political perspectives about the continued transgenerational influences of colonization negotiated their identity to resist and recover from colonial trauma. Our findings also unpacked the Bengali people's dream, commitment, and actionable proposals for reconfiguring regional geopolitical relationships toward pluriversal Bengali socio-cultural identity. Outlining the phases of decolonization of Bengali identity, the findings in this study connect with and contribute to the literature on narrative resilience and crisis informatics.

3.1.2 Understanding how Governance Shapes and Impedes Identity Expression Online. In another study on Quora, my colleagues and I demonstrated how a sociotechnical system like Quora reemphasizes colonial values by creating a hierarchy of identities, further deepening division among people through algorithmic coloniality, and imposing identity using collective surveillance and self-imprisonment [9]. Drawing on a conceptual framework that brings together identity performativity, governance, content moderation, and surveillance, we found that the sociotechnical mechanisms of governance that mediate people's performances on the platform establish platform identity where in particular identities are privileged while others are pushed to the margins based on dialects, nationalities, and religious affiliations. Whereas the pluriversal perspective emerged as an objective of the decolonization of Bengali identity earlier [10], the emergence of a hierarchy among various Bengali identities by the moderators' practices hurt the sense of community, online trust, and safety among the users of the platform. In doing so, the platform governance impeded the process of identity expression, performance, and decolonization.

3.2 Forthcoming and in Progress Works

3.2.1 Exploring Content Creation on YouTube as a Strategy for Decolonizing Identity. Contrary to Quora, where most communication is text-based, YouTube is a multimodal platform comprising videos posted by content creators—individuals or groups and textual interactions among the viewers. In my work, I want to understand YouTubers' motivations for making videos about colonially marginalized cultures, conceptualize different types of videos with decolonial intent, explore video-making practices of YouTubers from the Global South, and identify the challenges and strategies in their video-making practices. For that, we have designed a mixed-method study. I have interviewed 15 YouTubers from Bangladesh, India, and Pakistan—three countries with a shared history of British colonization. Moreover, we will collect videos and viewers' comments from popular YouTube channels highlighting regional Bengali cultures from different countries. My research will explain how people use content creation on YouTube to revise and strengthen their local and indigenous selves. In other words, I am interested in understanding how people decolonize their identities. By "identity decolonization", I refer to the identity work they engage in to unpack, revise, reaffirm, and strengthen their local and indigenous identities [14, 22, 26]. In the context of Bengali people who experienced multiple waves of colonization, conceptualizing such "local and indigenous" nationhood can be complicated. To untangle the complex and multi-faceted concept of indigeneity in the case of Bengali people and their socioeconomic structures, I will draw on postcolonial and decolonial scholarship grounded in historicism and nationalism [7, 18, 37].

3.2.2 Evaluating the Feasibility of Using NLP in Automated Content Moderation. Our prior work demonstrated how Quora's governance can reinstate colonial division and hierarchy on the platform [9]. Given the non-transparent nature of the platform's moderation, I based that study on Bengali Quora users' dominant assumption that human administrators moderate the contents on the platform. In doing so, their identity and positionality in different religious and national communities often influence their decisions, which we found that many users deemed impeding and marginalizing their identity expression. Motivated by scholarship on different content moderation styles (e.g., human vs. automated) [27], in contrast to human moderators, I will investigate the feasibility and potential impacts of automated content moderation for governing interaction among colonially marginalized Bengali communities. In social science literature, audit studies have been used to scrutinize racial discrimination and biases [4], and similar approaches were later appropriated for studying algorithmic systems [1, 13, 39]. Prior works on automated content moderation have identified NLP systems (e.g., sentiment analysis, machine translation) as vital components in automated content moderation [23, 38, 40]. Particularly, I want to understand the colonial impulses of sentiment analysis algorithms and datasets in content moderation and evaluate their identity-based biases. To this end, my colleagues and I are designing an algorithmic audit [33], for which we have already prepared a cultural identity bias evaluation dataset [8] that primarily focuses on gender, religion, and nationality—three identity dimensions heavily affected by colonialism in the Bengal. We have also curated Bengali open-source sentiment analysis packages (n=29)

and datasets (n=24) from various sources (e.g., PyPI, GitHub, Google dataset search, Kaggle). As scholarship in critical algorithm studies, fairness, accountability, and transparency has well-established the possibility of biases in algorithmic systems [24, 42], by designing an experimental study, I will examine how NLP-based automated moderation can exhibit biases toward different intersectional identities in Bengali communities. I will interpret the results through critical social computing lenses like decolonial AI and postcolonial computing [25, 34].

4 CURRENT AND EXPECTED CONTRIBUTIONS

My work makes three primary contributions. First, through the investigation of the identity expression and performances of the colonially marginalized communities from the Global South in online communities, I contribute to extending the identity literature in CSCW and HCI beyond its current Western narrative and mostly Global North contexts. Second, given colonialism's historical influences on different dimensions of identity (e.g., race, gender, sexuality, religion, caste, and nationality), my work uncovers the complex social power dynamics and provides historicist sensibility for technology designs. Third, my empirical studies build bridges between the often disconnected [11] postcolonial and decolonial computing discourses. Adopting postcolonial perspectives, my studies can highlight both users' agency and the lack of it, which my decolonial outlook complements by proposing design recommendations to bring the colonially marginalized communities to the center. Moreover, my work contributes to ongoing conversations in CSCW, such as content creation and moderation, interaction design, ethics, fairness and bias, social justice, ICTD, etc. Altogether, my research brings forth diverse cultural communities from different countries in the Indian subcontinent, which have long been underrepresented in social computing research despite the region's large population and geopolitical importance.

5 GOALS FOR CSCW DOCTORAL CONSORTIUM

I have proposed my dissertation topic earlier this year. The CSCW 2023 doctoral consortium (DC) is taking place at a time when I am analyzing the data from my interviews with YouTubers and designing my evaluation studies for different NLP systems. From the DC, I wish to get help in thinking through how my research on multi-dimensional marginalization of identity in online communities from decolonial and postcolonial perspectives can be connected with broader fields within CSCW and HCI. Moreover, since I am looking for postdoctoral and tenure-track positions in academia to start in Fall 2024, attending CSCW DC will be a great opportunity for me to network with people at the conference. In turn, I hope to contribute to CSCW DC by sharing my experience of mixed-method critical social computing research in transnational Global South contexts.

ACKNOWLEDGMENTS

I am grateful to my advisor Bryan Semaan and collaborators Shion Guha and Carsten Østerlund for their support and mentorship. I also thank our participants for sharing their experiences with us

and my colleagues at the Information Science department and Al-Adala lab at the University of Colorado Boulder for their help at various points. This research was supported in part by NSF grant CRII-1657429.

REFERENCES

- [1] Abubakar Abid, Maheen Farooqi, and James Zou. 2021. Large language models associate Muslims with violence. *Nature Machine Intelligence* 3, 6 (2021), 461–463.
- [2] Syed Mustafa Ali. 2016. A brief introduction to decolonial computing. *XRDS: Crossroads, The ACM Magazine for Students* 22, 4 (2016), 16–21.
- [3] Kagonya Awori, Frank Vetere, and Wally Smith. 2016. Sessions with grandma: fostering indigenous knowledge through video mediated communication. In *Proceedings of the First African Conference on Human Computer Interaction*. 1–11.
- [4] Marianne Bertrand and Sendhil Mullainathan. 2004. Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American economic review* 94, 4 (2004), 991–1013.
- [5] Judith Butler. 2011. *Gender trouble: Feminism and the subversion of identity*. routledge.
- [6] Hilary M Carey. 2011. *God's empire: religion and colonialism in the British world, c. 1801–1908*. Cambridge Univ. Press.
- [7] Partha Chatterjee. 1993. *The nation and its fragments: Colonial and postcolonial histories*. Princeton University Press.
- [8] Dipto Das, Shion Guha, and Bryan Semaan. 2023. Toward Cultural Bias Evaluation Datasets: The Case of Bengali Gender, Religious, and National Identity. In *Proceedings of the First Workshop on Cross-Cultural Considerations in NLP*.
- [9] Dipto Das, Carsten Østerlund, and Bryan Semaan. 2021. "Jol" or "Pani"? How Does Governance Shape a Platform's Identity? *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–25.
- [10] Dipto Das and Bryan Semaan. 2022. Collaborative identity decolonization as reclaiming narrative agency: Identity work of Bengali communities on Quora. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. 1–23.
- [11] Dipto Das and Bryan Semaan. 2022. Decolonial and Postcolonial Computing Research: A Scientometric Exploration. In *Companion Publication of the 2022 Conference on Computer Supported Cooperative Work and Social Computing*. 168–174.
- [12] Maria del Pilar Kaladeen. 2021. "Those Not with Us Anymore": The Literary Archive of Indian Minorities in Guyanese Indenture and Beyond. *Journal of West Indian Literature* 29, 1 (2021), 26–191.
- [13] Mark Diaz, Isaac Johnson, Amanda Lazar, Anne Marie Piper, and Darren Gergle. 2018. Addressing age-related bias in sentiment analysis. In *Proceedings of the 2018 chi conference on human factors in computing systems*. 1–14.
- [14] Bryan Dosono and Bryan Semaan. 2020. Decolonizing tactics as collective resilience: Identity work of AAPI communities on Reddit. *Proceedings of the ACM on Human-Computer interaction* 4, CSCW1 (2020), 1–20.
- [15] Paul Dourish and Scott D Mainwaring. 2012. Ubicomp's colonial impulse. In *Proceedings of the 2012 ACM conference on ubiquitous computing*. 133–142.
- [16] Sheena Erete, Aarti Israni, and Tawanna Dillahunt. 2018. An intersectional approach to designing in the margins. *Interactions* 25, 3 (2018), 66–69.
- [17] Frantz Fanon. 2008. *Black skin, white masks*. Grove press.
- [18] Frantz Fanon, Jean-Paul Sartre, and Constance Farrington. 1963. *The wretched of the earth*. Vol. 36. Springer.
- [19] Viktor Gecas. 1982. The self-concept. *Annual review of sociology* 8, 1 (1982), 1–33.
- [20] R Stuart Geiger and David Ribes. 2011. Trace ethnography: Following coordination through documentary practices. In *2011 44th Hawaii international conference on system sciences*. IEEE, 1–10.
- [21] Oliver L Haimson, Jed R Brubaker, Lynn Dombrowski, and Gillian R Hayes. 2015. Disclosure, stress, and support during gender transition on Facebook. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*. 1176–1190.
- [22] Helen Halbert and Lisa P Nathan. 2015. Designing for discomfort: Supporting critical reflection through interactive tools. In *Proceedings of the 18th ACM conference on computer supported cooperative work & social computing*. 349–360.
- [23] Danula Hettiachchi and Jorge Goncalves. 2019. Towards effective crowd-powered online content moderation. In *Proceedings of the 31st Australian Conference on Human-Computer-Interaction*. 342–346.
- [24] Ben Hutchinson and Margaret Mitchell. 2019. 50 years of test (un) fairness: Lessons for machine learning. In *Proceedings of the conference on fairness, accountability, and transparency*. 49–58.
- [25] Lilly Irani, Janet Vertesi, Paul Dourish, Kavita Philip, and Rebecca E Grinter. 2010. Postcolonial computing: a lens on design and development. In *Proceedings of the SIGCHI conference on human factors in computing systems*. 1311–1320.
- [26] Judy M Iseke-Bames. 2008. Pedagogies for decolonizing. *Canadian Journal of Native Education* 31, 1 (2008).
- [27] Jialun Aaron Jiang, Peipei Nie, Jed R Brubaker, and Casey Fiesler. 2023. A trade-off-centered framework of content moderation. *ACM Transactions on Computer-Human Interaction* 30, 1 (2023), 1–34.
- [28] Shamika Klassen, Sara Kingsley, Kalynd McCall, Joy Weinberg, and Casey Fiesler. 2021. More than a modern day Green book: Exploring the online community of Black Twitter. *Proc. of the ACM on Human-Computer Interaction* 5 (2021).
- [29] Poka Laenui. 2000. Processes of decolonization. *Reclaiming Indigenous voice and vision* (2000), 150–160.
- [30] Ania Loomba. 2015. *Colonialism/postcolonialism*. Routledge.
- [31] Maria Lugones. 2016. *The coloniality of gender*. Springer.
- [32] Nelson Maldonado-Torres. 2007. On the coloniality of being: Contributions to the development of a concept. *Cultural studies* 21, 2-3 (2007), 240–270.
- [33] Danaë Metaxa, Joon Sung Park, Ronald E Robertson, Karrie Karahalios, Christo Wilson, Jeff Hancock, Christian Sandvig, et al. 2021. Auditing algorithms: Understanding algorithmic systems from the outside in. *Foundations and Trends® in Human-Computer Interaction* 14, 4 (2021), 272–344.
- [34] Shakir Mohamed, Marie-Therese Png, and William Isaac. 2020. Decolonial AI: Decolonial theory as sociotechnical foresight in artificial intelligence. *Philosophy & Technology* 33 (2020), 659–684.
- [35] Gail Omvedt. 1994. *Dalits and the democratic revolution: Dr Ambedkar and the Dalit movement in colonial India*. SAGE.
- [36] David Snow. 2001. Collective identity and expressive forms. (2001).
- [37] Robert Soden, David Ribes, Seyram Avle, and Will Sutherland. 2021. Time for historicism in CSCW: An invitation. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–18.
- [38] Heng Sun and Wan Ni. 2022. Design and Application of an AI-Based Text Content Moderation System. *Scientific Programming* 2022 (2022).
- [39] Latanya Sweeney. 2013. Discrimination in online ad delivery: Google ads, black names and white names, racial discrimination, and click advertising. *Queue* 11, 3 (2013), 10–29.
- [40] Sahaj Vaidya, Jie Cai, Soumyadeep Basu, Azadeh Naderi, Donghee Yvette Wohn, and Aritra Dasgupta. 2021. Conceptualizing Visual Analytic Interventions for Content Moderation. In *2021 IEEE Visualization Conference (VIS)*. IEEE.
- [41] Morgan Vigil-Hayes, Nicholet Deschine Parkhurst, and Marisa Duarte. 2019. Complex, contemporary, and unconventional: Characterizing the tweets of the#NativeVote movement and Native American candidates through the 2018 US midterm elections. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–27.
- [42] Christo Wilson, Avijit Ghosh, Shan Jiang, Alan Mislove, Lewis Baker, Janelle Szary, Kelly Trindel, and Frida Polli. 2021. Building and auditing fair algorithms: A case study in candidate screening. In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*. 666–677.
- [43] Qunfang Wu, Louisa Williams, Ellen Simpson, and Bryan Semaan. 2022. Conversations About Crime: Re-Enforcing and Fighting Against Platformed Racism on Reddit. *Proc. of the ACM on Human-Computer Interaction* (2022).