Design for the Well-Being of LGBTQ+ University Students

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ABSTRACT

In the past decade, there has been a significant amount of work in HCI & ICT4D to understand different ways in which we can empower the most marginalized and vulnerable populations in our society. Accessible healthcare is one of the major focuses of such work, but designing for the LGBTQ+ community in India with a focus on health is still understudied. In India, the LGBTQ+ community is very diverse, and prior research in Sociology has suggested that the community has faced a lot of oppression, discrimination, and violence in society. In our work, we are trying to understand how do LGBTQ+ university students socialize and seek social support. We aim to answer two broad research questions: a) Can technology really offer a solution to address the emotional needs of the society? b) If yes, what is the right approach to design, i.e., do we design '*for*' or do we design by involving the community and by leveraging existing human and material assets from '*within*' the community?

CCS CONCEPTS

• **Human-centered computing** → **Empirical studies in HCI**; • **Social and professional topics** → *Gender*.

INTRODUCTION

India has a visibly limited but invisibly diverse LGBTQ+ culture. This is mainly due to widespread homophobia in Indian society. This is further exacerbated by successive governments' failure to identify the community and grant them legal status. It was only when The Supreme Court of India in its landmark judgement declared that Section 377 of the Indian Penal Code as unconstitutional, which criminalized all sexual acts "against the order of nature," did the community hailed a sigh of relief [1]. The community has always been at the bottom of the hierarchy when it comes to fundamental human rights, however, things are slowly changing. For example, a lot of Non-Governmental Organizations (NGO) like Humsafar Trust[2], Naz[3] are working to make our society, workplaces, transport, schools, hospitals, etc. more gender-inclusive.

Gender Based Studies

HCI & ICT4D research is not something new in India, or for the matter, in the Global South. A lot of research has been done in urban and rural India in these allied fields [10, 11, 14]. The high penetration of mobile phones in India opened a variety of doors for researchers to look beyond investigating its impact, and shift their focus towards designing interactions for different stakeholders [22, 24]. Apart from this, we also see a growing body of much-needed work in Feminist HCI, which is currently being studied globally [3, 5, 12, 21, 22]. Still, gender-based studies in HCI in India is currently very much limited, and those that specifically focus on the LGBTQ+ community is non-existent.

Design for Well-Being

Researchers across the globe have used user-centered approaches to design and study the well-being of technology users. For example, a social-computing approach to understanding mental health [4], investigating role of fitness trackers promoting health in low-SES families [19], technology for aging population [8, 18], self-disclosure on social media [1] etc. Researchers have also explored how one can design technologies for gendered minority communities, such as trans-population using a participatory design approach [7]. In India, a growing body of work is exploring designing technology-based interventions to support mental health; for example, researchers are examining how mental health helpline workers perceive the effectiveness of helpline technology [17], or ways in which technology can be leveraged to support doctor-patient interactions among clients with serious mental illness [23]. However, a vast majority of work on mental health in India does not come from the HCI community, but from the domain of public health [9, 13] and behavioral sciences [20].

Taking inspiration from existing studies [15, 16], we are working with transitioning adults i.e., university students, and looking at the problem from an emotional well-being perspective rather than

from a mental illness perspective. Specifically, we want to examine whether or not we can design technology for the digital well-being of the LGBTQ+ community in India? If yes, then how can we design such technologies? Instead of directly introducing a technological intervention, we seek to answer these two questions using an assets-based approach.

Specifically, our study is guided by the following three research questions:

RQ 1: How do university students who identify themselves as LGBTQIA+ currently seek and receive social & emotional support to maintain their 'well-being'?

RQ 2: What role does technology offer to support the students in RQ1?

RQ 3: How can we design such technology that could address RQ2?

PROPOSED METHODOLOGY

We plan to use a mixed-method approach to answer the research questions. First, we will conduct semi-structured interviews to understand how university LGBTQ+ students seek social support, and based on the themes emerging from the analysis, we want to identify the' strengths' and "weaknesses" of the existing social support system available to the members within their community. Later, we will conduct a survey to investigate the general perception around designing such technologies based on the findings from the interview. Lastly, we will be using a participatory design approach to understand how we can design a technology-based support system for the community's needs.

From our findings, we aim to deliver the following:

a.) Insights into how LGBTQ+ students maintain or make decisions about their well-being and seek social support while at university?

b.) Design Implications that could help designers/engineers better understand the requirements of this community to develop a socio-technical system to support the well-being of LGBTQIA+ students.

Why Assets Based Approaches?

We were inspired by two previous works, one in which researchers examined how can we design technology in a profoundly patriarchal society in Bangladesh, where the researchers argue that instead of designing for the 'needs' of the community, we have to design by drawing upon the resources that exist 'within' the community [21]. Another research study from Nepal, used an asset-based approach to identify the strengths of survivors of human trafficking to design technology to support their development [6]. Considering these two works, we wanted to understand the larger picture and identify the current social support systems within the LGBTQ+ university students in India, which could ultimately help us design better support systems for the community.

DISCUSSION

Homophobia is a widely prevalent social problem in India, and it is deeply rooted in our cultural system. However, this is slowly changing in urban India, with more and more spaces becoming more gender-inclusive. Homophobia also has its roots in Indian healthcare infrastructure [2]; therefore, it is essential to explore the use of technology based digital well-being solutions, which could help individual members of the LGBTQ+ community to manage their emotional health and well-being. This is more so important for transitioning adults who are not only managing the pressures of their college life, but also negotiating their identity as they transition into their adulthood.

We hope that through our study, we can better inform researchers, designers, and academicians about how we can be more inclusive towards the LGBTQ+ student community and design solutions for the well-being. To the best of researchers' knowledge, there is no previous research on this topic from a design perspective.

Attending this workshop could help us to understand the three underlined themes of the workshop i.e., Unpacking the Process of Identifying Community Assets, Understanding Assets and Issues of Power & Translating these Assets to Design. All three themes are very relevant to our study, and would provide us with an opportunity to learn and discuss our idea with like-minded people and receive their valuable feedback.

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REFERENCES

[1] Nazanin Andalibi, Oliver L Haimson, Munmun De Choudhury, and Andrea Forte. 2016. Understanding social media disclosures of sexual abuse through the lenses of support seeking and anonymity. In *Proceedings of the 2016 CHI conference on human factors in computing systems*. 3906–3918.

[2] SAK Azad and Prafulla Kumar Nayak. 2016. Health care barriers faced by LGBT people in India: an investigative study. *Research Innovator* 3, 5 (2016), 77–82.

[3] Shaowen Bardzell. 2010. Feminist HCI: taking stock and outlining an agenda for design. In *Proceedings of the SIGCHI conference on human factors in computing systems*. 1301–1310.

[4] Munmun De Choudhury, Michael Gamon, Scott Counts, and Eric Horvitz. 2013. Predicting depression via social media. *Icwsm* 13 (2013), 1–10.

[5] Catherine D'Ignazio, Alexis Hope, Becky Michelson, Robyn Churchill, and Ethan Zuckerman. 2016. A Feminist HCI Approach to Designing Postpartum Technologies: " When I first saw a breast pump I was wondering if it was a joke". In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. 2612–2622.

[6] Aakash Gautam, Deborah Tatar, and Steve Harrison. 2020. Crafting, Communality, and Computing: Building on Existing Strengths To Support a Vulnerable Population. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–14.

[7] Oliver L Haimson, Dykee Gorrell, Denny L Starks, and Zu Weinger. 2020. Designing Trans Technology: Defining Challenges and Envisioning Community-Centered Solutions. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–13.

[8] Christina N Harrington, Tracy L Mitzner, and Wendy A Rogers. 2015. Understanding the role of technology for meeting the support needs of older adults in the USA with functional limitations. (2015).

[9] Takahiro Hasumi, Fatimah Ahsan, Caitlin M Couper, Jose L Aguayo, and Kathryn H Jacobsen. 2012. Parental involvement and mental well-being of Indian adolescents. *Indian pediatrics* 49, 11 (2012), 915–918.

[10] Neha Kumar and Nimmi Rangaswamy. 2013. The mobile media actor-network in urban India. In *Proceedings of the SIGCHI conference on human factors in computing systems*. 1989–1998.

[11] Indrani Medhi, Somani Patnaik, Emma Brunskill, SN Nagasena Gautama, William Thies, and Kentaro Toyama. 2011. Designing mobile interfaces for novice and low-literacy users. *ACM Transactions on Computer-Human Interaction (TOCHI)* 18, 1 (2011), 1–28.

[12] Maryam Mustafa, Amna Batool, Beenish Fatima, Fareeda Nawaz, Kentaro Toyama, and Agha Ali Raza. 2020. Patriarchy, Maternal Health and Spiritual Healing: Designing Maternal Health Interventions in Pakistan. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–13.

[13] Madhumita Nandi, Avijit Hazra, Sumantra Sarkar, Rakesh Mondal, and MALAY KUMAR Ghosal. 2012. Stress and its risk factors in medical students: an observational study from a medical college in India. *Indian J Med Sci* 66, 1-2 (2012), 1–12.

[14] Tapan S Parikh, Paul Javid, Kaushik Ghosh, and Kentaro Toyama. 2006. Mobile phones and paper documents: evaluating a new approach for capturing microfinance data in rural India. In *Proceedings of the SIGCHI conference on Human Factors in computing systems*. 551–560.

[15] Sun Young Park. 2018. Social support mosaic: Understanding mental health management practice on college campus. In *Proceedings of the 2018 Designing Interactive Systems Conference*. 121–133.

[16] Sun Young Park, Nazanin Andalibi, Yikai Zou, Siddhant Ambulkar, and Jina Huh-Yoo. 2020. Understanding Students' Mental Well-Being Challenges on a University Campus: Interview Study. *JMIR Formative Research* 4, 3 (2020), e15962.

[17] Sachin R Pendse, Faisal M Lalani, Munmun De Choudhury, Amit Sharma, and Neha Kumar. 2020. " Like Shock Absorbers": Understanding the Human Infrastructures of Technology-Mediated Mental Health Support. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–14.

[18] Alisha Pradhan, Amanda Lazar, and Leah Findlater. 2020. Use of Intelligent Voice Assistants by Older Adults with Low Technology Use. *ACM Transactions on Computer-Human Interaction (TOCHI)* (2020).

[19] Herman Saksono, Carmen Castaneda-Sceppa, Jessica Hoffman, Magy Seif El-Nasr, Vivien Morris, and Andrea G Parker. 2019. Social reflections on fitness tracking data: A study with families in low-SES neighborhoods. In *Proceedings of the 2019 chi conference on human factors in computing systems*. 1–14.

[20] Kamlesh Singh, Marta Bassi, Mohita Junnarkar, and Luca Negri. 2015. Mental health and psychosocial functioning in adolescence: An investigation among Indian students from Delhi. *Journal of adolescence* 39 (2015), 59–69.

[21] Sharifa Sultana, François Guimbretière, Phoebe Sengers, and Nicola Dell. 2018. Design within a patriarchal society: Opportunities and challenges in designing for rural women in bangladesh. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. 1–13.

[22] Anupriya Tuli, Shaan Chopra, Neha Kumar, and Pushpendra Singh. 2018. Learning from and with Menstrupedia: Towards menstrual health education in India. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (2018), 1–20.

[23] Anupriya Tuli, Pushpendra Singh, Mamta Sood, Koushik Sinha Deb, Siddharth Jain, Abhishek Jain, Manan Wason, Rakesh Chadda, and Rohit Verma. 2016. Harmony: close knitted mhealth assistance for patients, caregivers and doctors for managing SMIs. In *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct*. 1144–1152.

[24] Deepika Yadav, Pushpendra Singh, Kyle Montague, Vijay Kumar, Deepak Sood, Madeline Balaam, Drishti Sharma, Mona Duggal, Tom Bartindale, Delvin Varghese, et al. 2017. Sangoshthi: Empowering community health workers through peer learning in rural india. In *Proceedings of the 26th International Conference on World Wide Web*. 499–508.