Meghna Gupta

Ph.D. Student in Human Centered Design and Engineering
Research Interests: HCI, CSCW, Digital Safety, Care, Online Communities, Global South

Department of Human Centered Design and Engineering
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Education

2023 - Present **University of Washington**, Seattle, WA
Ph.D. in Human Centered Design and Engineering (GPA: 4.0)
Advisor: Prof. Julie Kientz

2016 - 2020 **Indraprastha Institute of Information Technology**, Delhi
B.Tech. (Hons) in Computer Science and Engineering (CSE)
Advisors: Prof. Grace Eden and Prof. Pushpendra Singh

Publications

CONFERENCE AND JOURNAL PAPERS

2024 Peya Mowar, **Meghna Gupta**, and Mohit Jain. 2024. Breaking the News Barrier: Towards Understanding News Consumption Practices among BVI Individuals in India . In *ACM SIGACCESS Conference on Computers and Accessibility* **(ASSETS '24)**.

2024 Caitlin Lustig, Maya Kaneko*, **Meghna Gupta***, Kavita Dattani*, Audrey Desjardins, and Daniela Rosner. Porous by Design: How Childcare Platforms Impact Worker Personhood, Safety, and Connection. In ACM Designing Interactive Systems Conference **(DIS'24)**. [Best Paper Award] (* = Equal Contribution)

2024 **Meghna Gupta***, Nimisha Karnatak*, Mohit Jain. Understanding the Technology-Mediated Home Phlebotomy Ecosystem in India. *Proc. ACM Hum.-Comput. Interact. 8, CSCW1, Article 144.* **(CSCW'24)** (* = Equal Contribution)

2023 Anant Mittal, **Meghna Gupta**, Roshni Poddar, Tarini Naik, Seethalakshmi Kuppuraj, James Fogarty, Pratyush Kumar, and Mohit Jain. 2023. Jod: Examining Design and Implementation of a Videoconferencing Platform for Mixed Hearing Groups. In *ACM SIGACCESS Conference on Computers and Accessibility* **(ASSETS '23)**.

2023   Harsh Vijay, Saumay Pushp, Amish Mittal, Praveen Gupta, **Meghna Gupta**, Sirish Gambhira, Shivang Chopra, Mayank Baranwal, Arshia Arya, Ajay Manchepalli, and Venkata N. Padmanabhan. 2023. HyWay: Enabling Mingling in the Hybrid World. In *ACM Interact. Mob. Wearable Ubiquitous Technolology* **(IMWUT '23)**.

2022   Azra Ismail, Deepika Yadav, **Meghna Gupta**, Kirti Dabas, Pushpendra Singh, and Neha Kumar. Imagining Caring Futures for Frontline Health Work. *Proc. ACM Hum.-Comput. Interact. 6, CSCW2, Article 480 (November 2022), 30 pages.* **(CSCW '22)**.

2022   **Meghna Gupta**, Devansh Mehta, Anandita Punj, and Indrani Medhi Thies. 2022. Sophistication with Limitation: Understanding Smartphone Usage by Emergent Users in India. In *ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies* **(COMPASS '22)**.

2022   **Meghna Gupta** and Grace Eden. 2022. The Human-Air Interface: Responding To Poor Air Quality Through Lived Experience and Digital Information. In *ACM Designing Interactive Systems Conference* **(DIS '22)**.

WORKING PAPERS

2025   **Meghna Gupta** and Audrey Desjardins. Echoes of Care: Unveiling the Intertwined Tensions between Childcare Work and Voice Assistants. *Under review.*

2025   Pradyumna YM, Vinod Ganesan, Dinesh Kumar Arumugam, **Meghna Gupta**, Nischith Shadagopan, Tanay Dixit, Sameer Segal, Pratyush Kumar, Mohit Jain, Sriram Rajamani. PwR: Exploring the Role of Representations in Conversational Programming. *Under review.*

2025   **Meghna Gupta**, Sophie Stephenson, Apu Kapadia, Julie Kientz, and Franziska Rosner. "They are not my children to post": Examining Non-Parental Sharenting Practices in In-home Childcare. *In preparation.*

2025   **Meghna Gupta**, Arpita Bhattacharya, and Julie Kientz. "Being a nanny isn't just caregiving": An Analysis of How Nannies Seek Support in Online Communities like /r/Nanny. *In Preparation.*

ABSTRACTS AND POSTERS

2024   Tanvi Roy and **Meghna Gupta**. 2024. Weaponizing Cringe for Virality: Paving the Way for Democratization on Social Media. In Proceedings of the Social Media and Society in India Conference held at the University of Michigan, Ann Arbor, April 9-10, 2024 **(SMSI '24)**.

2022   Jasmeet Kaur, **Meghna Gupta**, and Pushpendra Singh. 2022. Understanding the Role of Technology-mediated Solutions for Women's Safety in Urban India. In *ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies* **(COMPASS '22)**.

2020   Arpit Bhatia, **Meghna Gupta**, Abhishek Gupta, and Nishtha Singhal. 2020. AICA: Artificial Intelligence Conversation Assistant. In *ACM Designing Interactive Systems Conference* (**DIS '20 Companion**).

WORKSHOP PAPERS

2022   **Meghna Gupta**. Seeking Digital Care in Low-Resourced Contexts: Identifying Opportunities and Challenges. In *Information-Seeking Online Workshop* at (**CSCW '22**).

2020   **Meghna Gupta** and Grace Eden. Meaning in Language: From Professional to Local Contexts. In *(Coping With) Messiness in Ethnography Workshop* at (**ECSCW '20**).

Experience

2021 - 2023   **Research Fellow**, Microsoft Research India
Advisors: Dr. Indrani Medhi Thies, Dr. Mohit Jain
Worked on several research projects around Human Computer Interaction (HCI) and Information Communication and Technologies for Development (ICTD), specifically in the context of emerging digital technologies, healthcare and well-being, and accessibility.

2021 - 2021   **Research Intern**, Microsoft Research India
Advisor: Dr. Indrani Medhi Thies
Worked on understanding smartphone usage among emergent users in low-income communities in India across both urban and rural areas.

2020 - 2022   **Research Assistant**, Intelligent and Interactive Systems Lab, IIIT Delhi
Advisors: Dr. Pushpendra Singh, Prof. Neha Kumar
Worked on research problems around gender, health and well-being, and labor in India, with specific focus on (1) women safety in public spaces, and (2) care routines of frontline health workers (FHWs) during COVID-19.

2020 - 2021   **Software Engineer**, NatWest (Royal Bank of Scotland)
Worked on enhancing the user experience of a CI/CD dashboard (Hygieia) by customizing the widgets corresponding to various stages of integration and deployment pipeline in the Software Development Cycle (SDC).

Ongoing Research Projects

2024 - Present   **Exploring Photography and Social Media Guidelines in Childcare Institutions**
Graduate Research Assistant, University of Washington
Advisors: Prof. Julie Kientz

Investigating complexities around photography and social media sharing in childcare institutions and the surrounding lived experiences of childcare providers, parents, and children.

2024 - Present **Characterizing Non-parental Sharenting on Online Social Media Platforms**
Graduate Research Assistant, University of Washington
Advisors: Prof. Julie Kientz, Prof. Franziska Roesner, Prof. Apu Kapadia
Examining and characterizing digital behaviors surrounding non-parental sharenting on social media platforms such as TikTok, Instagram, etc.

2024 - Present **Understanding Fraudulence in Online Qualitative Research**
Graduate Research Assistant, University of Washington
Advisors: Prof. Julie Kientz, Prof. Sean Munson
Working on examining the motivations behind fraudulent participation in online qualitative studies. Investigating the resources, as well as the techniques and technologies commonly employed to facilitate deception.

2024 - 2024 **Critical Exploration of VAs in Complex Multi-stakeholder Household Settings**
Graduate Research Assistant, University of Washington
Advisor: Prof. Audrey Desjardins
Conducted a study to critically examine how might voice assistants (VAs) function within complex, multi-stakeholder household settings. Used scenario elicitation along with critical reflections to study this.

2023 - 2024 **Understanding the Use of Online Communities of Practice in Childcare Work**
Graduate Research Assistant, University of Washington
Advisor: Prof. Julie Kientz
Using mixed-methods to study how and why childcare workers use online communities of practices such as Reddit for their needs around training, advocacy, and matching.

2023 - Present **Investigating the Role of LLMs in Providing Surgery-related Information**
Microsoft Research India, *Advisor: Dr. Mohit Jain*
Conducted a user study to understand how the pre- and post- operative information flow happens from healthcare providers to the patients and caregivers in case of cataract. [Working Paper]

2022 - 2023 **Understanding Emergent Technology Use among Low-income Communities in India**
Microsoft Research India, *Advisor: Dr. Indrani Medhi Thies*
Worked on understanding voice search use among emergent low-literate smartphone users in India. Conducted and analyzed 21 semi-structured interviews and 10 task-based observation studies to propose recommendations for designing voice search for emergent users.

Academic Service

Reviewer

2023 - Present ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS)
2022 - Present ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
2021 - Present ACM CHI Conference on Human Factors in Computing Systems (CHI)
2021 - Present ACM CHI Late Breaking Work (LBW)

Student Volunteer

2024 ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
2022 ACM SIGCHI Symposium for HCI and Friends
2022 ACM Designing Interactive Systems (DIS)

Invited Talks

2022 What does working in HCI for Global Development look like?
Introduction to HCI, Winter 2022, IIIT Delhi

2022 Technology and Global Development at CHI 2021
Invited Talk, Technology & Empowerment Group, Microsoft Research India

2021 Intersectionality: An Ongoing Discussion
Invited Talk, Technology & Empowerment Group, Microsoft Research India

Selected Software Projects

2021 - 2022 **HyWay: Enabling Unstructured Conversations in the New Hybrid World** [link]
Microsoft Research India, *Advisors: Dr. Venkat Padmanabham, Dr. Ajay Manchepalli*
Our team designed, developed, and deployed a hybrid communication platform to improve interactions between today's physical and virtual users with 100+ attendees. Specifically, I worked on designing a virtual map to enable fluid movement, muffled audio of users based on the distance for porous conversations.

2019 - 2019 **Delhi Metro Rail Corporation (DMRC) Connect** [link]
IIIT Delhi, *Advisor: Prof. Ponnurangam Kumaraguru*
Developed an Android application to facilitate interactions between DMRC officials and Delhi Metro users using human-centered design methodologies. Covered by various media houses across New Delhi.

2019 - 2019 **Conference Portal: Designing conference applications in a click!** [link]
IIIT Delhi, *Advisor: Prof. Pushpendra Singh*

Designed and developed a Django-based web platform that can be used by conferences (academic or non-academic) to automatically generate a customized android application for their conference as per their requirements. Used at ICTD 2019 to generate official conference mobile applications.

Skills

Research Methods:	Semi-structured Interviews, Surveys, Ethnographic Observations, Usability Testing and Evaluation, Technology Probes, Participatory Design, Quantitative Study
Design Tools:	Adobe XD, Proto.io, Adobe Photoshop
Programming Languages:	Python, Java, Javascript

Grants, honours & awards

2024   **CRA-WP: Grad Cohort Workshop for Women**
Received Scholarship to attend Grad Cohort Workshop, April 2024 in Minneapolis, USA.

2020   **Undergraduate Thesis**
Received Dean's letter of appreciation and recognition for significant achievements in undergraduate thesis.

2017   **Google Women Techmakers Travel Grant**
Youngest of the 10 women across the world to be awarded travel support to attend the Firebase Dev Summit 2017 in Amsterdam.

2017   **BYLD Hackathon**
Awarded the first position for developing a mobile application that recommends songs depending upon the mood of the person.

2014   **National Talent Search Exam Scholarship**
Awarded by Government of India to identify and recognize students (top 0.01% students) with high intellect and academic talent at national level.

2013   **Junior Science Talent Search Exam Scholarship**
Awarded by Central Board of Secondary Education to academically bright students (top 150 students) belonging to Delhi State.

Leadership & Volunteering

2021

TEM Reading Group, MSR India | *Organizer*

Responsible for organizing a lab-wide reading group and arranging talks in HCI, ICTD, and related areas.

2017 **Government Co. Senior Secondary School** | Teacher

Responsible for teaching a class of 30+ students – covered academic curriculum as well art and craft, computer lab and fitness sessions.