Divyanshu Kumar Singh

PhD Student, Information Science
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Expertise

Research Interests: Human-Computer Interaction (HCI), Critical Computing, Communities, Justice, Social Media.

Research Methods: interviews, focus-groups, ethnographic field studies, survey, thematic analysis, statistical analysis.

Education

Aug 2022 - Present	**University of Colorado Boulder, USA** Ph.D in Information Science **Advisor**: Prof. Bryan Semaan
July 2017 - July 2021	**Indraprastha Institute of Information Technology Delhi (IIIT Delhi), India** B.Tech in Computer Science and Engineering **Advisor(s)**: Dr. Venkata Ratnadeep Suri, Dr. Jainendra Shukla Thesis: Understanding the Digital Technology Use Amongst LGBTQ+ Adults in India for Well-Being.

Publications

[J.1] **Singh, D. K**., Kumar, M., Fosch-Villaronga, E., Singh, D., & Shukla, J. (2022). Ethical Considerations from Child-Robot Interactions in Under-Resourced Communities. *International Journal of Social Robotics*, 1-17. *[PDF]*

[C.1] Wani, A. S., **Singh, D. K**., & Singh, P. (2022, April). "Hartal (Strike) Happens Here Everyday": Understanding Impact of Disruption on Education in Kashmir. In *CHI Conference on Human Factors in Computing Systems* (pp. 1-17). *[PDF]*

[C.2] **Kumar Singh, D**., Sharma, S., Shukla, J., & Eden, G. (2020, March). Toy, Tutor, Peer, or Pet? Preliminary Findings from Child-Robot Interactions in a Community School. In *Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 325-327). *[PDF] [Video]*

[W.1] **Divyanshu Kumar Singh**, Venkata Ratnadeep Suri, Jainendra Shukla. 2020. Design for the Well-Being of LGBTQIA+University Students. (Lightly Reviewed, Workshop Paper) in *From Needs to Strengths: Operationalizing an Assets-Based Design of Technology* at ACM CSCW 2020, Oct-2020. *[PDF]*

[C.x]=Conference, [J.x]=Journal, [W.x]=Workshop

Research Experience/Projects

September 2020 - present	**Digital Technology Use Amongst LGBTQ+ Adults in India** **Advisor(s)**: Dr. Venkata Ratnadeep Suri, Dr. Gopinaath Kannabiran, Dr. Jainendra Shukla • Understanding tech (mobile, social media, internet, mobile apps) use and non-use by queer adults for their well-being in India. [W.1] • Reached out to queer collectives, conducted in-depth interviews, thematic analysis.

March 2021 - February 2021	**Student Researcher - Mélange Lab, IIIT Delhi** *Advisor:* Dr. Pushpendra Singh

- Education, Technology and Disruption in Kashmir *(Mar'21 - Sep'21)*
- Understanding impact of disruption/conflict on education access, tech use in Kashmir [C.2]
- thematic analysis of interview, brainstorming implications
- *Collaboration*: Asra Sakeen Wani (PhD Scholar, IIIT Delhi)

July 2019 - September 2021	**Undergraduate Student Researcher - Human-Machine Interaction Lab, IIIT Delhi** *Advisor:* Dr. Jainendra Shukla

- Ethics of CRI in Under-Resourced Communities *(Oct'20 - Feb'21)*
- Understanding ethical issues arising from deploying social robots for education in under-resourced communities [J.1]
- Thematic & interaction analysis of video and interviews
- *Collaboration*: Deepa Singh (PhD Scholar, Delhi University), Dr. Manohar Kumar, Dr. Eduard Fosch-Villaronga

- Social Robot for Primary Education *(Jul'19 - Jan'20)*
- 2 month long ethnographics Child-Robot Interaction (CRI) study for language learning tasks with Kindergarten students at a community school [C.1]
- moderated CRI sessions, analyzed videos, interviews & field notes
- *Collaboration*: Dr. Sumita Sharma, Dr. Grace Eden

Professional Experience

June 2021 - July 2022	**Scry Analytics** Software Engineer (Data Science)

- Working in the Data Science team on flagship document digitisation product - Collatio.
- Machine Learning optimisation tests, Refining pipeline logic, Incorporating new documents.
- *Tech & Frameworks*: Python, Docker, Bash, MongoDB, Selenium.

May 2020 - July 2020	**IIIT Delhi** Summer Intern (*Advisor:* Dr. Anuj Grover)

- Studied TRIZ (Theory of Inventive Problem Solving) in various use cases and prepared an engineering course curriculum. Individually explored a Child-Robot Interaction scenario as a problem and applied TRIZ.

March 2019 - June 2019	**IIIT Delhi** Coordinator	Summer Camp 2019

- In 2019, 180 students from 7 different Delhi govt. school attended the summer camp.
- Designed curriculum for 'Hands on Science' module along with a team of 32 volunteers for 5 weeks of study for students of class 8 and 9; and ensuring proper execution of the camp.

Teaching Experience

Fall 2022   **Teaching Assistant, University of Colorado Boulder**
INFO 1101: Computation in Society
- Introductory course for 240 students in multiple departments.
- Assisting and grading student assignments.

Spring 2021   **Teaching Assistant, IIIT Delhi**
DES 101: Introduction to Human-Computer Interaction
- Introductory course for 282 first year undergraduates..
- Conducting & preparing weekly tutorial sessions. Mentored and graded group of 42 students and 10 projects.

Leadership

Coordinator (Head)   **ASTRONUTS: Astronomy Club of IIIT Delhi (Aug'18 - July'19)**
- Conducted Sky-Observation and in-class session on Astronomy
- Organized field trip to Sariska Astroport

Professional Service

Shadow PC -   Compass 2021
Peer-Reviewer (LBR) -   HRI'20, CHI'21, CSCW'21, Compass'21
Sub-Reviewer-   ICSR'20 Workshop (Child-Robot Interaction: Present and Future Relationships)

Volunteering

Student Volunteer -   ACM HRI'20
Community Service -   Volunteer for *Roshini*: Diwali Book Donation Drive 2019 for Govt. School Students in Delhi