

Swati Pandita

spandita@caltech.edu | swati.info | notheory15 

Research Interests

Human Computer Interaction: social media & virtual reality (VR), mental health & embodiment, avatars & identity

Education

- 2017–2022 **Communication, PhD**, Cornell University
Committee: Drs. Andrea Stevenson Won (Chair), Lee Humphreys, Natalie Bazarova, Marlen Gonzalez, and JoAnn Difede
Dissertation: “Affective Avatars: Effects of Avatar Customization on Positive and Negative Emotions”
- 2020 **Communication, MS**, Cornell University
- 2016 **Information Science, MPS**, Cornell University
- 2015 **Neuroscience, BS**, Rhodes College

Research Experience

- 8/2022–present **The Fear Lab**, California Institute of Technology, Pasadena, CA
Postdoctoral Researcher
- 8/2017–8/2022 **The Virtual Embodiment Lab**, Cornell University, Ithaca, NY
Graduate research assistant
- 1/2017–6/2017 **The Yau Lab**, Baylor College of Medicine, Houston, TX
Research assistant
- 4/2016–1/2017 **Pairade (now Current)**, Chicago, IL
User experience research intern
- 5/2016–8/2016 **Psycomm Lab**, Cornell University, Ithaca, NY
Graduate research assistant
- 2/2016–5/2016 **Communication & Collaborative Technologies Lab**, Cornell University, Ithaca, NY
Graduate research assistant

- 8/2015–1/2016 **Visual Cognition Lab**, Rhodes College, Memphis, TN
Undergraduate research assistant
- 5/2014–7/2014 **Cognition and Aging Lab**, Rhodes College, Memphis, TN
Undergraduate research assistant
- 9/2013–5/2014 **Learning Technologies Lab**, Rhodes College, Memphis, TN
Undergraduate research assistant

Awards

- 2024 Info Sys Travel Award (\$600), International Communication Association
- 2024 Chen Institute Travel Grant (\$600), Caltech
- 2021 CALS Alumni Association Award (\$400), Cornell University
- 2020 Media Studies Graduate Working Group Grant (\$1,000), Cornell University
- 2017 Cornell Graduate Research Fellowship (\$28,036), Cornell University
- 2014 Cognitive Aging Fellowship (\$4,329), Rhodes College

Publications

- 2024 **Pandita, S.***, Garg, K.*, Zhang, J., Zhang, J., Mobbs, D. (2024). "The three roots of online toxicity: Disembodiment, Accountability, and Disinhibition." *Trends in Cognitive Sciences (TiCS)*, 28(9). <https://doi.org/10.1016/j.tics.2024.06.001> *equal author contribution
- 2023 Kao, D., Mubarrat, S. T., Joshi, A., **Pandita, S.**, Mousas, C., Liang, H. N., & Ratan, R. (2023). "Exploring how gender-anonymous voice avatars influence women's performance in online computing group work." *International Journal of Human-Computer Studies*, 103146. <https://doi.org/10.1016/j.ijhcs.2023.103146>
- 2021 Boydston, C., **Pandita, S.**, Finkelstein-Fox, L., Difede, J. "Harnessing virtual reality for disaster mental health: a multidisciplinary systematic review." *Translational Issues in Psychological Sciences*. <https://doi.org/10.1037/tps0000282>
- 2020 Won, A. S., **Pandita, S.**, Kruzan, K. (2020). "Social interaction and pain threshold in virtual reality." *Cyberpsychology, Behavior, and Social Networking*, 23(12). <https://doi.org/10.1089/cyber.2020.0055>

Madden, J. H., **Pandita, S.**, Won, A.S., Schuldt, J.P., Kim, B., & Holmes, N.G. (2020). "Ready student one: Exploring the predictors of student learning in virtual reality." *PLoS ONE*, 15(3). <https://doi.org/10.1371/journal.pone.0229788>

Pandita, S., & Won, A.S. (2020). "Clinical Applications of virtual reality in patient-centered care." In J. Kim & H. Song (1), *Technology and Health: Promoting Attitude and Behavior Change* (pp. 129–148). Academic Press.

Archived Papers

2023 Sun, Y., **Pandita, S.**, Madden, J. M., Kim, B., Holmes, N. G., Won, A. S. (2023). "Exploring interaction, movement, and video-game experience in an educational VR Experience." In *Extended Abstracts on Human Factors in Computing Systems (CHI)*.

Long, T.† , **Pandita, S.**, & Won, A. S. (2023). Perspectives from Naive Participants and Experienced Social Science Researchers on Addressing Embodiment in a Virtual Cyberball Task. In *Computer Supported Cooperative Work and Social Computing (CSCW)* (pp. 189-194). †mentored student author

Pandita, S., Humphreys, L., Won, A.S. (2023) "The Paradox of Customization: Negotiating racial identity with "multiple choice" in avatar creation." *PsyArXiv*.

Conference Papers & Presentations

2024 **Pandita, S.**, Ratan, R., Kim, T., Jang, D., Lim, C., Xu, K., Won, A.S., Stavropoulos, V., Sinlapanuntakul, P., Praetorius, A.S., Pena, J., Park, I., Nowak, K., Matthews, N., MacArthur, V., Lin, T., Lee, K.M., Klebig, B., Kim, S.,...Aymerich-Franch, L. (2024). "The Development and Validation of the Motivations for Avatar-Mediated Meetings (MAMM) Scale." Paper presented at 74th Annual International Association of Communication Conference, June 20–24, Gold Coast, Australia.

2022 Won, A.S. & **Pandita, S.** (2022). "Being Yourself: A Scoping Review on How Avatar Personalization Is Implemented in Empirical Work." Poster presented at 72nd Annual International Association of Communication Conference, May 26-30, Hybrid Conference.

2021 **Pandita, S.**, Humphreys, L., Won, A.S. (2021). "The paradox of customization: Negotiating racial identity with "multiple choice" in avatar creation." Paper presented at 71st Annual International Association of Communication Conference, May 27–31, Virtual Conference.

- Pandita, S.**, (2021). "Mechanisms of care: The importance of routine for mental healthcare in Animal Crossing New Horizons." Research escalator presented at 71st Annual International Association of Communication Conference, May 27-31, Virtual Conference.
- 2020 **Pandita, S.**, Yee, J., & Won, A.S. (2020). "Affective embodiment: Embodying emotions through postural representation in VR." Poster presented at 27th IEEE Conference on Virtual Reality and 3D User Interfaces, March 22–26, Atlanta, GA.
- Pandita, S.** (2020). "Affective embodiment: The effect of avatar appearance and gesture representation on emotions in VR." Doctoral Consortium at 27th IEEE Conference on Virtual Reality and 3D User Interfaces, March 22–26, Atlanta, GA.
- 2019 **Pandita, S.**, Humphreys, L., & Won, A.S. (2019). "Expectations of the self in virtual reality: A qualitative analysis of virtual avatar creation." Paper presented at 24th Annual CyberPsychology, CyberTherapy, and Social Networking Conference, June 24–26, Norfolk, VA.
- Pandita, S.**, Celikors, E., Rojas, N., et al. (2019). "Visualizing Movement with Learning Outcomes in Educational VR Environments." Poster presented at 24th Annual CyberPsychology, CyberTherapy, and Social Networking Conference, June 24–26, Norfolk, VA.
- Won, A.S., Kruzan, K.*, & **Pandita, S.*** (2019). "As long as you're with me: the effects of social presence and distance on pain perception in virtual environments." Paper presented at 24th Annual CyberPsychology, CyberTherapy, and Social Networking Conference, June 24–26, Norfolk, VA.
- *equal author contribution*
- 2018 Madden, J. H., Won, A. S., Schuldt, J. P., Kim, B., **Pandita, S.**, Sun, Y., et. al. (2018). "Virtual Reality as a Teaching Tool for Moon Phases and Beyond." In Proceedings of the Physics Education Research Conference, Aug 1–2, Washington, DC.
- Sun, Y., **Pandita, S.**, Shaikh, O., Kim, B. & Won, A. S. (2018). "Personalized Avatars and Self-presence." In Proceedings of the International Society for Presence Research Annual Conference, May 21–22, Prague, Czech Republic.
- 2017 Schrader, D., Tallapragada M., **Pandita S.**, Etri C., & Shore A. (2017). "Self Efficacy and Social Aggression." Paper presented at 43rd Association for Moral Education Annual Conference, St. Louis, MO.

- Schrader, D., Tallapragada M., **Pandita S.**, Etri C., & Shore A. (2017). "Personality, Trust, and the Privacy Creep." Paper presented at 43rd Association for Moral Education Annual Conference, St. Louis, MO.
- 2016 **Pandita, S.**, Suresh, S., & Haberman, J. (2016). "Average Size Estimation of Dots Completing behind an Illusory Surface Is Precise." Poster presented at 16th Annual Meeting of Vision Sciences Society.
- 2014 Person, S., **Pandita S.***, & Schonhoff A.* (2014). "Politeness Strategies in Expert Tutoring." Poster presented at 24th Annual Meeting of Society for Text & Discourse, Chicago, IL. **equal author contribution*

Current Research

- 2024 Ratan, R. & **Pandita, S.** (forthcoming). "Avatars, Explicated: Toward a broad definition to last another 4,000 words."
- Ratan, R., Lim, C, **Pandita, S.**, Foxman, M., Hales G. E., Liu, H., Lei, Y. S., Beyea, D., Lee O. JY. (under review). "Openness to the Metaverse Workplace: Zoom fatigue and metaverse information seeking mediate gender inequities."
- Pandita S.**, Won, A. S. (in prep). "Effects of avatar customization on AAPIs coping with negative emotions."
- Pandita, S.**, Difede, J., Won, A. S. (in prep). "Breathing Room: designing mood regulation spaces for depression."
- Guo, S., Liu, C., **Pandita, S.**, Sun, Y., Bailey, J., Won, A. S. (in prep). "Like the Back of My Own Hand: Investigating the effects of context and experience on people's attitudes toward inconsistent first-person avatar views."
- Pandita, S.**, Garg, K., Zhang, B., Anderson, I. A., Mobbs, D. (in prep). "The neural correlates of social media."
- Pandita, S.**, Garg, K., Mobbs, D. (in prep). "It's good for my health: Exploring perceptions of social media use for anxiety management."
- Pandita, S.**, Anderson, I. A., Mobbs, D. (in prep). The boundaries of disembodiment: a questionnaire for virtual disembodiment.
- Anderson, I. A., Garg, K., **Pandita, S.**, Mobbs, D. (in prep). "Likability and monetary reward and punishment in anonymous online chats."
- Garg, K., Anderson, I. A., **Pandita, S.**, Mobbs, D. (in prep). "Social interactions and individual differences in online conversations."

Cornell University Teaching Experience

Instructor of Record

Summer 2022	COMM 2010 Oral Communication
Spring 2020	COMM 2010 Oral Communication
Fall 2019	COMM 2010 Oral Communication
Summer 2019	COMM/INFO 2450 Communication and Technology

Graduate Teaching Assistant

Spring 2022	COMM 3200 New Media & Society
Fall 2021	COMM 1101 Introduction to Communication
Summer 2021	COMM 4300 Ethics in New Media, Technology, and Communication
Fall 2017	COMM/INFO 2450 Communication and Technology

Guest Lecturer

Spring 2022	COMM 3200 New Media & Society
Fall 2021	COMM 1101 Introduction to Communication
Summer 2021	COMM 1300 Visual Communication
Spring 2019	COMM 1300 Visual Communication
Spring 2018	COMM 1300 Visual Communication

Invited Talks, Workshops, & Panels

2024	Invited talk, "Effects of Avatar Embodiment on Clinical VR Applications for Mental Health." Virtual Medicine (vMed24) Conference . Los Angeles, CA.
2021	Invited talk, "iLRN 2021 UX Insights." Immersive Learning Research Network (iLRN) . Online.
2021	Invited participant, "Research Collaboration Opportunity Jam." XR Access Symposium . Online.

- 2020 Invited talk, "Affective Embodiment: designing virtual environments for depression management." Visual Cognition Lab, Rhodes College.
- 2019 Organized Workshop, "Hands-on Workshop in Immersive Technology for Beginners." [Immersive Media in Medicine Symposium](#). New York, NY.
- Panel Moderator, "VR for Beginners." [Immersive Media in Medicine Symposium](#). New York, NY.
- Invited participant, "[Grad Cohort for Women 2019](#)" hosted by Computing Research Association Widening Participation (CRA-WP). Chicago, IL.
- Panelist, "Practical Replication and Data Sharing Examples." 69th International Communication Association of Communication Conference. Washington, D.C.

Service

Volunteer

- 2024 Meaningful XR, conference organizer
- 2022 Cornell University, Department of Communication's Advisory Board, graduate student volunteer
- 2021 iLRN Assessment and Evaluation Team
- 2018 Connecting Opportunities Summer Event, organized by Lesa Carter and Kathy Dimiduk of Engineering, Cornell University.

Reviewer (since)

- 2024 Meaningful XR 2024
Journal of Media Psychology
- 2023 Designing Interactive Systems
International Communication Association (ICA)
Conference on Human Factors and Computing Systems (CHI)
- 2022 Computer-supported Cooperative Work (CSCW)
New Media & Society
- 2020 Cyberpsychology, Behavior, and Social Networking

Students Mentored

Current

Caltech

- 2024 Matt Tyszka, Biology (BS)
- 2023 Julia Kim, Computer Science (BS)
Noah Okada, PhD student at Caltech
- 2022 Molina Zhang, Neuroscience (BS), now PhD student at Brown University

Cornell University

- 2018 Jueun Kwon, MEng (BS), now PhD student at Northwestern University

Former

Cornell University

- 2021-2022 Stephanie Tan, Communication (BS)
Tao Long, Information Science (BS), now PhD student at Columbia University
- 2021 Winnie Chen, Communication (BS)
- 2020-2022 Cathy Xie, Communication (BS)
- 2020 Christabella Forest, Communication (BS)
- 2019-2020 Nayana Paraviel, Computer Science (BS)
Annie Fu, Information Science (BS)
Michael Huang, Information Science (BS)
- 2017-2020 Jessica Yee, Information Science (BS)
Joshua Zhu, Information Science (BS)
- 2017-2018 Jane Kim, Computer Science (BS)
Frank Rodriguez, Computer Science (BS)
Anirudh Maddula, Computer Science (BS)

Rhodes College

- 2014-2016 Ashley Bruneau, Biology (BS)

Association Membership

2019–present	International Communication Association (ICA)
2019–2020	IEEE
2015–2016	Vision Sciences Society (VSS)

Media Coverage

2024	Model highlights three roots of online toxicity . Phys.org. Aug 26. Understanding Online Toxicity . Caltech News. Aug 24.
2019	Episode 65: Jack Madden and Swati Pandita . Leading Lines Podcast. Oct 7. Study Finds No Difference in VR Learning Outcomes Compared to Other Modes . Campus Technology. Feb 7. Study probes effect of virtual reality on learning . Cornell Chronicle. Feb 5.

Skills

Psychophysics	MatLab, Psych Toolbox, AFNI, FreeSurfer
Qualitative	Interview study design, semi-structured interviews, and thematic analysis
Quantitative	Experimental design, survey design, statistics (SPSS, R) VR movement data collection and analysis
User-centered Design	Development: Unity Engine (C#), WebGL, FTP Prototyping: Adobe Photoshop, Figma, Sketch, Invision, CSS, HTML Methods: Participatory design, Personas, User Modeling, Storyboarding, User-testing