

Eugy Han

eugyoung.github.io / eugyoung@stanford.edu

Research Interests: AR/VR/MR, Human-computer interaction

Education

- 2020 - present **Ph.D.** in Communication, Media Psychology (Virtual Reality)
Stanford University
Advisor: Professor Jeremy N. Bailenson
- 2020-2023 **M.A.** in Communication, Media Psychology (Virtual Reality)
Stanford University
- 2016 - 2020 **B.S.** in Cognitive Science
Brown University
Advisor: Professor William H. Warren
Honors Thesis: "Weighted-averaging model of crowd motion generalizes to different turn angles and crowd sizes"

Publications

- [1] **Han, E.***, & Bailenson, J.N. (In Press). Lessons for Lessons in Virtual Classrooms: Designing a Model for Classrooms inside Virtual Reality. *Communication Education*.
- [2] Seeing the World through Digital Prisms: Psychological Implications of Passthrough Video Usage in Mixed Reality. *Technology, Mind, and Behavior*.
- [3] Wang, P., Miller, M. R., **Han, E.***, DeVaux, C., & Bailenson, J. N. (2024). Understanding virtual design behaviors: A large-scale analysis of the design process in Virtual Reality. *Design Studies*, 90, <https://doi.org/10.1016/j.destud.2023.101237>
- [4] Akselrad, D., DeVaux, C., **Han, E.***, Miller, M.R., & Bailenson, J.N. (2023). Body Crumple, Sound Intrusion, and Embodiment Violation: Toward a Framework for Miscommunication in VR. *Computer-Supported Cooperative Work And Social Computing (CSCW)*
- [5] DeVaux, C., **Han, E.***, Landay, J.A., & Bailenson, J.N. (2023). Exploring the Relationship Between Attribute Discrepancy and Avatar Embodiment in Immersive Social Virtual Reality. *Cyberpsychology, Behavior, and Social Networking*, <https://doi.org/10.1089/cyber.2023.0210>
- [6] DeVaux, C., Markowitz, D. M., **Han, E.***, Miller, M. R., Hancock, J. T., & Bailenson, J. N. (2023). Descriptive Linguistic Patterns of Group Conversations in VR. In *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)* (pp. 785-786). IEEE. <https://doi.org/10.1109/VRW58643.2023.00235>
- [7] **Han, E.***, Miller, M.R., DeVaux, C., Jun, H., Nowak, K.L., Hancock, J.T., Ram, N., & Bailenson, J.N. (2023). People, Places, and Time: A Large-scale, Longitudinal Study of Transformed Avatars and Environmental Context in Group Interaction in the Metaverse. *Journal of Computer-Mediated Communication*, 28(2), <https://doi.org/10.1093/jcmc/zmac031>

- [8] Miller, M. R., DeVaux, C., **Han, E.***, Ram, N., & Bailenson, J. N. (2023). A Large-Scale Study of Proxemics and Gaze in Groups. In *2023 IEEE Conference Virtual Reality and 3D User Interfaces (VR)* (pp. 409-417). IEEE. <https://doi.org/10.1109/VR55154.2023.00056>.
- [9] Queiroz, A., McGivney, E., Xiu, S.L., Anderson, C., Beams, B., DeVaux, C., Frazier, K., **Han, E.***, ... & Bailenson, J. N. (2023). Collaborative Tasks in Immersive Virtual Reality Increase Learning. In *Proceedings of the 16th Conference on Computer-Supported Collaborative Learning (CSCL)*
- [10] **Han, E.***, Nowak, K.L., & Bailenson, J.N. (2022). Prerequisites for Learning in Networked Immersive Virtual Reality. *Technology, Mind, and Behavior*, 3(4: Winter). <https://doi.org/10.1037/tmb000094>
- [11] Amit, E., **Han, E.***, Posten, A., & Sloman, S. (2021). How people judge institutional corruption. *Connecticut Law Review*, 52(3), 1121-1138

In Preparation or Under review

- [1] Miller, M. R., DeVaux, C., **Han, E.***, Bailenson, J.N. (Under Review). Multiverse Analysis of Nonverbal Synchrony.
- [2] Miller, M. R., Nair, V., DeVaux, C., **Han, E.***, Bailenson, J.N. (Under Review). Robustness of Virtual-Reality-Tracked Motion as a Behavioral Biometric.
- [3] **Han, E.***, Wang, P., DeVaux, C., Harari, G.M., & Bailenson, J.N. (In Prep). How and What do Students Create in Virtual Reality? A Top-down and Bottom-up Approach in Understanding Creativity Expression in Shared Virtual Environments.
- [4] **Han, E.***, DeVaux, C., Hancock, J.T., Ram, N., Harari, G.M., & Bailenson, J.N. (Under Review). The Influence of Spatial Dimensions of Virtual Environments on Individuals and Group Dynamics During Social Interactions.
- [5] **Han, E.***, DeVaux, C., Miller, M.R., Harari, G.M., Hancock, J.T., Ram, N., & Bailenson, J.N. (Under Review). Alone Together, Together Alone: The Effects of Social Context on Nonverbal Behavior in Virtual Reality.
- [6] Markowitz, D., Harari, G.M., **Han, E.***, Miller, M.R., DeVaux, C., & Bailenson, J.N. (Under Review). Individual Differences and Contextual Influences on Group Behavior in Virtual Reality: A Person-Environment Interactionist Perspective.

Conference Papers and Posters

- [1] **Han, E.***, DeVaux, C., Hancock, J.T., Ram, N., Harari, G.M., & Bailenson, J.N. (June 20-24). *The Influence of Spatial Dimensions of Virtual Environments on Social Interactions*. 74th Annual International Communication Association Conference (ICA), Gold Coast, Australia. [Full Paper]

- [2] **Han, E.***, DeVeaux, C., Miller, M.R., Harari, G.M., Hancock, J.T., Ram, N., & Bailenson, J.N. (June 20-24). *Alone Together, Together Alone: The Effects of Social Context on Nonverbal Behavior in Virtual Reality*. 74th Annual International Communication Association Conference (ICA), Gold Coast, Australia. [Full Paper]
- [3] Pandita, S., Pandita, S., Ratan, R., Kim, Taenyun, Jang, D., Lim, C., Xu, K., Won, A., Stavropoulos, V., Sinlapanuntakul, P., Praetorius, Anna S., Peña, J., Park, I., Nowak, K., Matthews, N., McArthur, V., Lee, K., Klebig, B., Kim, S., Kao, D., Kahn, A., Jeong, D., Hasler, B., Harrell, F., **Han, E.***, ... & Aymerich-Franch, L. (June 20-24). *The Development and Validation of the Motivations for Avatar-Mediated Meetings (MAMM) Scale*. 74th Annual International Communication Association Conference (ICA), Gold Coast, Australia. [Full Paper]
- [4] **Han, E.***, DeVeaux, C., Hancock, J.T., Ram, N., Harari, G.M., & Bailenson, J.N. (February 8, 2024). *Does Virtual Size Matter? The Influence of Spatial Dimensions of Virtual Rooms on Psychological and Behavioral Outcomes*. SPSP Psychology of Media and Technology Pre-Conference, San Diego, CA, USA.
- [5] Lin, Q., Lim, C., Lover, A., **Han, E.***, Park, R., Jang, D., An, Y., Schultz, Z., Ratan, R., Bailenson, J.N. (April 11-14, 2024). *Optimizing Learning in the Metaverse: Class Duration in VR Compared to Zoom on Student Outcomes*. American Education Research Association (AERA), Philadelphia, PA, USA. [Full Paper]
- [6] DeVeaux, C., **Han, E.***, Landay, J.A., & Bailenson, J.N. (2023, May 25-29). *A Presence of Absence: Understanding Disparities in Avatar Racial Representation and Embodiment in Social VR*. 73rd Annual International Communication Association Conference (ICA), Toronto, Ontario, Canada. [Full Paper]
- [7] DeVeaux, C., Markowitz, D., **Han, E.***, Miller, M.R., Hancock, J.T., & Bailenson, J.N. (2023, May 25-29). *A Large Scale, Longitudinal Analysis of Speech in Social VR: Language in the Virtual Classroom*. 73rd Annual International Communication Association Conference (ICA), Toronto, Ontario, Canada. [Full Paper]
- [8] **Han, E.***, DeVeaux, C., Harari, G.M., & Bailenson, J.N. (2023, May 25-29). *VRtivity: Understanding Creativity Expression in Shared Virtual Environments*. 73rd Annual International Communication Association Conference (ICA), Toronto, Ontario, Canada. [Extended Abstract]
- [9] Lin, Q., Ratan, R., Lover, A., Lim, C., Jang, D., Schultz, Z., An, Y., & **Han, E.*** (2023, May 25-29). *Is Teaching in Virtual Reality Superior to Video Conferencing? Examining the Role of Social Presence*. 73rd Annual International Communication Association Conference (ICA), Toronto, Ontario, Canada. [Research Escalator]
- [10] Park, R., Miller, M.R., **Han, E.***, DeVeaux, C., Bailenson, J.N., & Ram, N. (2023, May 25-29). *Modeling the Formation and Dissolution of Social Ties in Virtual Reality*. 73rd Annual International Communication Association Conference (ICA), Toronto, Ontario, Canada. [Poster]

- [11] **Han, E.***, Nowak, K.L., & Bailenson, J.N. (2023, May 18). *Virtual Reality: Transforming Research and Communication Campaigns for the Future*. UConn Center for mHealth and Social Media CHASM Conference. [Video Poster]
- [12] **Han, E.***, Nowak, K.L., & Bailenson, J.N. (2022, May 26-30). *Learning Together in Virtual Reality: A Longitudinal Case Study*. 72nd Annual International Communication Association Conference (ICA), Paris, France. [Full Paper] ***Top Student Paper Award, Information Systems Division**
- [13] **Han, E.***, Miller M.R., Nowak, K.L., Bailenson, J.N., & Hancock, J.T. (2022, May 26-30). *The “Social” in Social VR: A Linguistic Analysis of Verbal Behavior in Groups*. 72nd Annual International Communication Association Conference (ICA), Paris, France. [Extended Abstract]
- [14] **Han, E.***, Miller M.R., Ram, N., Nowak, K.L., & Bailenson, J.N. (2022, May 26-30). *Understanding Group Behavior in Virtual Reality: A Large-Scale, Longitudinal Study in the Metaverse*. 72nd Annual International Communication Association Conference (ICA), Paris, France. [Full Paper]
- [15] **Han, E.***, Willcoxon, M., Wirth, D.T., & Warren, H.W. (2020, June 19-24). *Weighted-averaging model of crowd motion generalizes to different turn angles and crowd sizes*. Vision Sciences Society. [Poster]

Book Chapters

- [1] **Han, E.***, & Bailenson, J.N. (In Prep). Social Interaction in VR. In Oxford Research Encyclopedia of Communication.
- [2] **Han, E.***, & Bailenson, J.N. (December, 2023). Moral Behavior in Virtual Reality. In Kissel, A., & Ramirez, E. (Eds.) *Exploring Extended Realities: Metaphysical, Psychological, and Ethical Challenges*. Routledge.
- [3] **Han, E.***, & Quintero, S.I. (October, 2023). Enacting Virtual Boundaries: Music Video and the Changing Technological Landscape. In Jirsa, T., Korsgaard T.B. (Eds.), *Traveling Music Videos*. Bloomsbury Publishing USA.
- [4] DeVeaux, C., **Han, E.***, Bailenson, J.N. (2022). Expanding Education through Virtual Reality. In McKenzie, S. P., Arulkadacham, L., Chung, J., & Aziz, Z. (Eds.), *The Future of Online Education* (pp. 325-336). Nova Science Publishers. <https://doi.org/10.52305/LERQ4827>

Teaching Experience

2022	Main Instructor COMM118S: Into the Metaverse: Designing the Future of Virtual Worlds <ul style="list-style-type: none"> Proposed and designed a course to be taught during Stanford’s summer quarter Course was requested to be retaught by the university due to high ratings
2021, 2022	Teaching Assistant to Professor Jeremy Bailenson

2019 COMM166/266: Virtual People, Stanford University, Fall 2021, 2022
 • Lead course designer for first large-scale course inside VR
 Teaching Assistant to Professor Jeff Huang
 CS130(0): User Interfaces/User Experience, Brown University, Fall 2019

Honors and Awards

2023 - present Stanford McCoy Ethics Fellow
 2020 - present Stanford Graduate Fellow in Science and Engineering
 2020 Research at Brown Grant
 2019 Brown Linking Internships and Knowledge Award
 2018 Brown Undergraduate Teaching and Research Award

Talks and Presentations

November 2023 Talk at University of Florida (Digital Worlds Institute)
 June 2023 AWE USA 2023
 Panel: “Avatars, Environments & Self-Expression - from Social VR to
 Cross-Reality Experiences”
 May 2023 Stanford XR: “Limitless Future: Exploring Virtual Possibilities”
 Education Panel
 Jan 2023 Talk at Quantum Photonics (ClubHouse)
 June 2022 SALTISE Conference 2022
 Symposium Panel: “Active learning through virtual realities and 3D avatars: A
 sneak peek behind the scenes of the process of conception, development, and
 implementation”
 April 2022 CODEX FutureLaw Conference 2022
 Panel: “Computational Law and the Metaverse (Do Virtual Realities Need
 Law?)”
 February 2022 Talk at Université Laval
 January 2022 Bodyswaps: The Educators vs. Virtual Reality
 Title: “The Virtual World is your Classroom: Learning in the Metaverse”

Professional Service

Reviewer for:
 [Journals] Cyberpsychology: Journal of Psychosocial Research on Cyberspace; Cyberpsychology,
 Behavior and Social Networking; Technology, Mind, and Behavior
 [Conference Proceedings] ISMAR 2022; CHI 2023, 2024; CSCW 2023; IEEE VR 2023, 2024
 [Conferences] ICA 2023, 2024; EUROGRAPHICS 2024

Skills

R, MATLAB, Python, Java, HTML/CSS, Maya, Statistical modeling

Media Coverage

“New Stanford study shows choices of virtual environments and avatars can promote positive psychological outcomes in the metaverse” Stanford News (December 14, 2022)

“VR study shows virtual avatars and environments can affect your mood” Venture Beat (December 15, 2022)

“Forget Zoom school. For some students, class is in session in VR” CNN (January 27, 2022)

“Stanford course allows students to learn about virtual reality while fully immersed in VR environments” Stanford News (November 5, 2021)

CV Last updated: 01/2024