Bilge Mutlu, *PhD* | Curriculum Vitae — *October 2026*

Department of Computer Sciences, University of Wisconsin–Madison
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Research Mission

To advance a design-led understanding of how robotic, AI, and interactive systems should behave in human environments; to develop tools and methods that help designers and engineers create meaningful human–technology interactions; and to enable the responsible integration of embodied AI into everyday life.

Appointments

Academic Appointments

2026– *Associate Chair for Faculty Affairs*, Department of Computer Sciences

2026– *Stephen Wright* Professor

2021–2026 *Sheldon B. & Marianne S. Lubar* Professor

2015–2021 Associate Professor

2009–2015 Assistant Professor
University of Wisconsin–Madison
Tenure Home: Department of Computer Sciences
Affiliate Appointments:
Wisconsin Institute for Discovery (WID), *Discovery Fellow*
Department of Industrial & Systems Engineering
Department of Psychology
McPherson Eye Research Institute (MERI)

Visiting Academic Appointments

2023–2024 *Digital Futures Scholar in Residence*, KTH Department of Robotics, Perception, and Learning, Sweden

2016–2017 *Visiting Professor*, Johns Hopkins University, Malone Center for Engineering Healthcare — *concurrent appointment*

2016–2017 *Visiting Professor*, George Washington University, Department of Biomedical Engineering — *concurrent appointment*

2007–2008 *Research Intern*, Intelligent Robotics and Communication Laboratory, ATR International, Kyoto, Japan

Professional Appointments

1999–2001 Industrial Designer, Arcelik Corporation, Design Group, Istanbul, Turkey

Education

2009 PhD, Human-Computer Interaction, School of Computer Science, Carnegie Mellon University

2004 MDes, Interaction Design, Fulbright Fellow, School of Design, Carnegie Mellon University

2003 MS, Product Design, Institute of Science and Technology, Istanbul Technical University, Istanbul, Turkey

1999 BID, Industrial Design, Department of Industrial Design, Middle East Technical University, Ankara, Turkey, *Summa Cum Laude*

Honors & Awards

Honors, Awards & Distinctions

2026 *Stephen Wright* Professorship, Department of Computer Sciences, University of Wisconsin–Madison; *"For excellence in research of human-robot interaction and human centered AI, and for exemplary service to the department over a sustained period"*

Senior Member, Institute of Electrical and Electronics Engineers (IEEE)

2025 *Excellence in Honors Thesis Advising Award*, L&S Honors Program, University of Wisconsin–Madison

2022 *Vilas Associates Competition*, University of Wisconsin–Madison

2021 *H.I. Romnes Faculty Fellowship*, University of Wisconsin–Madison

Sheldon B. and Marianne S. Lubar Professorship, Department of Computer Sciences, University of Wisconsin–Madison

2020 *Provost's Early Career Award*, University of Wisconsin–Madison

2013 *Allen Newell Award for Research Excellence*, Carnegie Mellon University, Forlizzi, Kiesler, DiSalvo, Mutlu, Lee, Torrey; *"Elucidation of the fundamental principles of human-robot interaction and its associated methods"*

2012 NSF CAREER Award

2010 *World Technology Network Fellow Finalist*, WTN Award in I.T. Hardware

2002 *Fulbright Fellowship*, U.S. Department of State

1999 *Summa Cum Laude*, Dept. Industrial Design & School of Architecture, Middle East Technical University

Paper Awards & Nominations

2026 *Honorable Mention*, Best Systems Paper Award, ACM/IEEE Human-Robot Interaction (HRI 2026)
Kim, White, He, Sala, & **Mutlu, B**: *RoboCritics: Enabling Reliable End-to-End LLM Robot Programming through Expert-Informed Critics*

Honorable Mention, Best Late-Breaking Report, ACM/IEEE Human-Robot Interaction (HRI 2026)
Sullivan, Porfirio, **Mutlu, B**, & Hiatt: *Examining the Effectiveness of Obfuscatory Planning Strategies through Human Observation*

Sustainability Recognition, ACM/IEEE Human-Robot Interaction (HRI 2026)
Kamino, Cagiltay, **Mutlu, B**, Jung, & Šabanović: *Kept Alive, Bricked, Revived: Community Articulation Work and Value Renegotiation Beyond A Robot's Commercial Failure*

2025 *Honorable Mention* (Top 251 in 5020), ACM/SigCHI Human Factors in Computing (CHI 2025)
Kim, Sato, White, Ho, Lee, Hwang, & Mutlu: *Bridging Generations using AI-Supported Co-Creative Activities*

Sustainability Recognition, ACM/IEEE Human-Robot Interaction (HRI 2025)
Pelikan, Mutlu, & Reeves: "*Making Sense of Public Space for Robot Design*"

Best Technical Paper Award (Top 6 in 400), ACM/IEEE Human-Robot Interaction (HRI 2025)
Mahadevan, Lewis, Li, Mutlu, Tang, & Grossman: "*ImageInThat: Manipulating Images to Convey User Instructions to Robots*"

2024 *Pioneering Research Award Finalist*, IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2024)
Xu, Cagiltay, Michaelis, Sebo, & Mutlu: *Robots in Family Routines: Development of and Initial Insights from the Family-Robot Routines Inventory*

Honorable Mention (Top 150 in 4028), ACM/SigCHI Human Factors in Computing (CHI 2024)
Ho, Hubbard, & Mutlu: *"It's Not a Replacement:" Enabling Parent-Robot Collaboration to Support In-Home Learning Experiences*

of Young Children

Best Design Paper Award (Top 6 in 352), ACM/IEEE Human-Robot Interaction (HRI 2024)
Koike, Wehner, & Mutlu: *Sprout: Designing Expressivity for Robots Using Fiber-Embedded Actuation*

2023 *UBICOMP 10-Year Impact Award*, ACM Pervasive and Ubiquitous Computing (UbiComp 2013)
Hoque, Courgeon, Martin, Mutlu, & Picard: *MACH: My Automated Conversation coacH*

Best Systems Paper Award (Top 5 in 250), ACM/IEEE Human-Robot Interaction (HRI 2023)
Schoen, Sullivan, Zhang, Rakita, & Mutlu: *Lively: Enabling Multimodal, Lifelike, and Extensible Real-time Robot Motion*

2022 *Meritorious Poster Award* (Top 59 in 1394), American Speech–Language–Hearing Association (ASHA 2017)
Clough, Tanguay, Mutlu, Turkstra, & Duff: Using Bag-of-Words and Hierarchical Clustering to Explore Differences in Emoji Perception after Traumatic Brain Injury

Best Short Paper (Top 2 in 102), ACM Interaction Design and Children (IDC '22)
Cagiltay, Michaelis, Sebo, & Mutlu: *Exploring Children's Preferences for Taking Care of a Social Robot*

Honorable Mention (Top 131 in 2597), ACM/SigCHI Human Factors in Computing (CHI 2022)
Lee, Cagiltay, & Mutlu: *The Unboxing Experience: Exploration and Design of Initial Interactions Between Children and Social Robots*

2020 *Honorable Mention* (Top 12 in 279), ACM/IEEE Human-Robot Interaction (HRI 2020)
Praveena, Rakita, Mutlu, & Gleicher: *Supporting Perception of Weight through Motion-induced Sensory Conflicts in Robot Teleoperation*

2019 *First Runner-Up*, IEEE Transactions on Automation Science and Engineering Googol Best New Application Paper Award of 2019
Pearce, Mutlu, Shah, & Radwin: *Optimizing Makespan and Ergonomics in Integrating Collaborative Robots into Manufacturing Processes*

Honorable Mention Award (Top 7 in 142), ACM Interaction Design and Children (IDC 2019)
Michaelis & Mutlu: *Supporting Interest in Science Learning with a Social Robot*

2018 *Best Paper Award* (Top 3 in 375), ACM Symposium on User Interface Software and Technology (UIST 2018)
Porfirio, Sauppé, Albarghouti, & Mutlu: *Authoring and Verifying Human-Robot Interactions*

Best Paper Award (Top 4 in 206), ACM/IEEE Human-Robot Interaction (HRI 2018)
Rakita, Mutlu, & Gleicher: *An Autonomous Dynamic Camera Method for Effective Remote Teleoperation*

2017 *Meritorious Poster Award* (Top 55 in 1895), American Speech–Language–Hearing Association (ASHA 2017)
Beadle, Turkstra, Mutlu, & Duff: *Effects of Traumatic Brain Injury on Social Network Size, Life Satisfaction & Loneliness*

Honorable Mention (Top 97 in 2424), ACM/SigCHI Human Factors in Computing (CHI 2017)
Andrist, Mutlu, & Gleicher: *Looking Coordinated: Bidirectional Gaze Mechanisms for Collaborative Interaction with Virtual Characters*

2016 *Best Paper Award Nominee* (Top 10 in 306), IEEE Human-Robot Communication (RO-MAN 2016)
Bodden, Rakita, Mutlu, & Gleicher: *Evaluating Intent-Expressive Robot Arm Motion*

2015 *Meritorious Poster Award* (Top 54 in 1573), American Speech–Language–Hearing Association (ASHA 2015)
Duff, Rigon, Mutlu, & Turkstra: *Effects of Emotion Type & Intensity on Impairments in Facial Emotion Recognition Following TBI*

Best Paper Award (Top 21 in 2150), ACM/SigCHI Human Factors in Computing (CHI 2015)
Sauppé & Mutlu: *The Social Impact of a Robot Co-Worker in Industrial Settings*

Honorable Mention (Top 119 in 2150), ACM/SigCHI Human Factors in Computing (CHI 2015)
Andrist, Mutlu, & Tapus: *Look Like Me: Matching Robot Personality via Gaze to Increase Motivation*

2014 *Best Paper Award Nominee* (Top 5 in 132), ACM/IEEE Human-Robot Interaction (HRI 2014)
Andrist, Tan, Gleicher, & Mutlu: *Conversational Gaze Aversion for Humanlike Robots*

2013 *Best Paper Award* (Top 5 in 392), ACM Pervasive and Ubiquitous Computing (UbiComp 2013)
Hoque, Courgeon, Martin, Mutlu, & Picard: *MACH: My Automated Conversation coacH*

Highly Commended Paper (Top 3 in 61), Intelligent Virtual Agents (IVA 2013)
Andrist, Mutlu, & Gleicher: *Conversational Gaze Aversion for Virtual Agents*

Best Paper Award Runner-Up (Top 5 in 183), Robotics: Science and Systems (RSS 2013)
Huang & Mutlu: *Modeling and Evaluating Narrative Gestures for Humanlike Robots*

2011 *Best Paper Award* (Top 3 in 149), ACM/IEEE Human-Robot Interaction (HRI 2011)
Mumm & Mutlu: *Human-Robot Proxemics: Physical and Psychological Distancing in Human-Robot Interaction*

2009 *Best Paper Award* (Top 1 in 120), ACM/IEEE Human-Robot Interaction (HRI 2009)
Mutlu, Shiwa, Kanda, Ishiguro, & Hagita: *Footing in Human-Robot Conversations: How Robots Might Shape Participant Roles Using Gaze Cues*

2008 *Best Paper Award* (Top 1 in 134), ACM/IEEE Human-Robot Interaction (HRI 2008) Mutlu & Forlizzi: *Robots in Organizations: Workflow, Social, and Environmental Factors in Human-Robot Interaction*

Research Grants & Gifts

Total externally funded research: approx. $30M federal + $2M industry (PI/co-PI).

Federal Grants

2026–2031 NIH R01HL184472 — *Mechanisms and Treatments for Right Ventricular-related Inherited Arrhythmias Using Chamber-specific iPSC Models and Engineered tRNA Therapy*; Kamp (PI), Ahern (PI), Eckhardt (PI), Zhang (PI), **Mutlu**; $3,892,435

2024–2029 NSF EEC-2330040 — *Center: NSF Engineering Research Center for Human AugmentatioN via Dexterity (HAND)*; **Mutlu** (UW–Madison PI); $603,257 (Center Total: $26,000,000)

2023–2027 NSF IIS-2312354 — *Collaborative Research: HCC: Medium: Designing Social Companion Robots for Long-term Interaction*; **Mutlu** (PI), Sebo (PI), Michaelis (PI); $1,200,000

2023–2027 NSF IIS-2247381 — *SaTC: CORE: Medium: Designing Privacy-Aware Social Companion Robots*; Fawaz (PI), **Mutlu**, Kirkorian;$1,200,000

2022–2027 NSF DGE-2152163 — *Integrating Robots into the Future of Work*; **Mutlu** (PI), Niedenthal, Radwin, Zinn, Jacobs; $3,000,000

2022–2025 NSF IIS-2202803 — *HCC: Small: PATHWiSE - Supporting Teacher Authoring of Robot-Assisted Homework*; Michaelis (PI), **Mutlu** (PI); $600,000

2022–2027 NSF DUE-2201723 — *Trans-modal Analysis: A Mathematical and Computational Framework for Equity Assessment of Multi-modal STEM Learning Processes*; Shaffer (PI), Cai, **Mutlu**; $2,499,974

2021–2026 NHLBI R61HL151870-01A1 — *Using Smart Displays to Implement an Evidence-Based eHealth System for Older Adults with Multiple Chronic Conditions*; Gustafson (PI), Mares (PI), Brown, Kim, **Mutlu**, Quanbeck, Shah; $3,858,326

2021–2024 NSF CMMI-2026478 — *FW-HTF-RM: Human-Robot Collaboration for Manual Work*; Radwin (PI), **Mutlu**, Li, Smeeding, Jacobs; $1,500,000

2020–2025 AHRQ R18HS026853 — *Using Smart Devices to Implement an Evidence-based eHealth System for Older Adults*; Gustafson (PI), Mares, **Mutlu**, Mahoney;$1,987,467

2019–2023 NSF IIS-1925043 — *NRI: INT: COLLAB: Program Verification and Synthesis for Collaborative Robots*; **Mutlu** (PI), Albarghouthi, Sauppé; $958,887

2019–2023 NIH 2R01HD071089-06A1 — *Designing Computer-Mediated Communication Supports to Improve Social Participation After Traumatic Brain Injury*; **Mutlu** (Co-PI), Duff (Co-PI), Turkstra; $948,801

2019–2022 NASA 80NSSC19M0124 P00001 — *Effective Human-Robot Teaming to Advance Aviation Manufacturing*; **Mutlu** (PI), Gleicher, Zinn, Radwin, Gardner (Boeing), Cook (Boeing), Reid (Boeing); $2,997,761

2019–2020 NSF CMMI-1928425 — *FW-HTF-P: Human-Robot Collaboration for Enhancing Work Capabilities*; Radwin (PI), **Mutlu**, Li; $149,999

2019–2020 NSF DRL-1906854 — *STEMMates: Designing Companion Robots with Socially Situated Interest Scaffolds for Informal, In-home STEM Learning*; **Mutlu** (PI); $300,000

2019–2020 DOJ 2018-R2-CX-0025 — *Harnessing Existing Technologies to Mitigate Driving Distraction Among Law Enforcement Officers*; Noyce (PI), Lee, **Mutlu**; $464,621

2018–2024 NSF IIS-1830242 — *NRI: FND: Communicating Physical Interactions*; Gleicher (PI), **Mutlu**, Zinn; $749,986

2018–2023 NSF IIS-1822872 — *ROBO-VI: A Virtual-Internship-Based Hybrid Learning Technology to Prepare Traditional and Non-Traditional Students to Work with Collaborative Robots*; **Mutlu** (PI), Ruis, Shaffer; $499,123

2016–2018 NSF IIS-1651129 — *EAGER: Representations and Methods for Verifiable Human-Robot Interactions*; **Mutlu** (PI), Albarghouthi, Sauppé; $299,877

2013–2017 DOT DTRT13-G-UTC47 — *Human Factors for Crash Imminent Safety in Intelligent Vehicles*; Lee (PI), **Mutlu**; $299,131

2014–2015 NSF CMMI-1426824 — *NRI: Models & Instruments for Integrating Effective Human-Robot Teams into Manufacturing*; **Mutlu** (PI); $589,959

2014–2015 NASA NNX14AL45H — *Automated Task Monitoring, Feedback and Training for Critical Missions*; **Mutlu** (PI); $272,000

2012–2017 NSF CISE-IIS-1227530 — *DIP: BioSourcing: A Crowdsourcing Approach to Increasing Public Understanding in Computational Biosciences*; Squire (PI), Shapiro, **Mutlu**, Ferris; $1,349,989

2012–2017 NIH 1R01HD071089-01A1 — *Social Perception & social communication in adults with traumatic brain injury*; Turkstra (PI), **Mutlu**, Duff; $2,787,779

2012–2015 NASA NNX12AN14H — *Effective Human-Robot Collaborative Work for Critical Missions*; **Mutlu** (PI); $264,000

NSF CISE-IIS-1208632 — *NRI-Small: Perceptually Inspired Dynamics for Robot Arm Motion*; Gleicher (PI), **Mutlu**, Ferrier; $799,942

2012–2017 NSF CISE-IIS-1149970 — *CAREER: Designing Socially Adept Robots*; **Mutlu** (PI); $498,245

NSF CISE-IIS-1117652 — *Embodied Mediated Communication in Collaborative Work*; **Mutlu** (PI), Takayama; $487,810

2010–2013 NSF CISE-IIS-1017952 — *Designing Effective Gaze Mechanisms for Cross-Modal Embodied Agents*; **Mutlu** (PI), Gleicher; $499,050

Corporate/Foundation Grants/Gifts

2026–2027 NVIDIA Academic Grant Program — *SAGE: Behavioral Safety Guardrails for LLM-Controlled In-Home Service Robots*; **Mutlu** (PI); 35,000 H100 GPU-hours

2026–2027 UW–Madison CAARN (Community-Academic Aging Research Network), PATCHES Pilot Award — *Enhancing Nutritional Support for Older Adults Living in Assisted Living through Personalized Robotic Assistance*; **Mutlu** (PI), Roberts (Co-PI); $50,000

2025–2027 Honda Research Institute–US — *Embodied Learning For AI-Mediated Cultural Exchange (EMBRACE)*; **Mutlu** (PI); $564,756

2023 Google, Inc., Google Award for Inclusion Research — *Supporting Social Participation for Older Adults through Robotic Telepresence*; **Mutlu** (PI); $60,000

2023–2024 UW–Madison OVCRGE — *Assistive Technologies to Support Skill Development in Adults with Down Syndrome*; Sterling (PI), **Mutlu**; $49,078

2022–2023 UW–Madison Discovery2Product PRIME Grant — *Assessing How Assistive Programming Tools Can Facilitate the Integration of Collaborative Robots into Manufacturing*; **Mutlu** (PI); $48,841

2021–2024 McDonnell Foundation Award — *Faces in the Wild: Understanding Real-World Communication of Emotions* Niedenthal (PI), **Mutlu**, Ward, Li; $250,000

2016–2027 Toyota Corporation CSRC-042 — *Mechanisms for Enhancing Human-Automation Coordination and Situation Awareness in Autonomous Driving (Phase 2)*; Lee (PI), **Mutlu**; $254,879

2015–2016 Toyota Corporation CSRC-042 — *Mechanisms for Enhancing Human-Automation Coordination and Situation Awareness in Autonomous Driving (Phase 1)*; Lee (PI), **Mutlu**; $502,718

2013 Google, Inc., Glass Awards — *Improving Everyday Learning Using Glass* **Mutlu** (PI); $27,860

2013 Fujitsu Laboratories Ltd., Japan — *Designing a Robotic Motivational Coach*; **Mutlu** (PI); $50,000

2012–2013 UW–Madison OVCRGE— *Designing Effective Computer-Based Protocols for Early Detection of Autism*; **Mutlu** (PI); $39,729

2011–2012 UW–Madison OVCRGE — *Educational Brain-Computer Interfaces*; **Mutlu** (PI); $34,970

2010 Google, Inc., Faculty Research Awards — *Designing Adaptive Educational Interfaces*; **Mutlu** (PI); $40,000

2009–2012 Waltham Foundation, U.K. — *Does Interaction with Animals Help us in interpreting Human Social Behavior?* **Mutlu** (PI), Takayama, Kiesler, Kanda; $14,100

2009 Mitsubishi Heavy Industries, Ltd., Japan — *Wakamaru Humanlike Robot Equipment Loan;* **Mutlu** (PI), Kiesler

2006–2007 Ford Motor Company — *Posture Recognition for In-Car Seating*; **Mutlu** (PI), Krause; $2,000

Selected Invited Talks

Selected high-profile invited seminars, lectures, and keynotes.

2026 *Invited Talk*, Robotics Institute, Carnegie Mellon University
"*Robots for Real Life*"

2026 *Invited Talk*, Department of Psychology and Neuroscience Program, Bilkent University
"*Human-Robot Interaction as Distributed Cognition: Joint Action, Embodiment, and Situated Interaction*"

2025 *Department Seminar*, Faculty of Architecture, Middle East Technical University
"*Designing Robots as Products, Tools, Platforms*"

2024 *ME512 Seminar*, Department of Mechanical Engineering, Northwestern University
"*Enabling Everyday Use of Robots as Products, Tools, Platforms*"

2024 *Department Seminar*, Department of Information Technology, Uppsala University
"*Enabling Everyday Use of Robots as Products, Tools, Platforms*"

2023 *Distinguished Lecture*, Digital Futures, KTH Royal Institute of Technology
"*Enabling Everyday Use of Robots as Products, Tools, Platforms*"

2022 *Keynote Speaker*, Furhat Conference on Social Robotics
"*Taking Social Robots Out of the Lab and Onto the Road*"

2020 *Distinguished Lecture*, Department of Biomedical Engineering, George Washington University
"*Designing Robots for Human Interaction*"

2018 *Distinguished Lecture*, Department of Computer Science, Northwestern University
"*Designing Robots for Human Interaction*"

2018 *Invited Talk*, Koç University (as part of the Istanbul Design Biennial Program)
"*Designing Whole Interactions for Robotic Products*"

2017 *Conference Keynote Speaker*, International Conference on Intelligent Virtual Agents (IVA)
"*Virtual and Physical: Two Frames of Mind*"

Publications

See my Google Scholar, Scopus, ResearchGate, DLPB, ACM profiles for a full list of publications. For brevity, only journal and selective, full-length conference papers are included below.

In Press (5)

White, N. T., Schoen, A., Sullivan, D., & **Mutlu, B.** CoFrame: A System for Training Novice Cobot Programmers. *ACM Transactions on Human-Robot Interaction*.

Schroder, M., Hwang, Y., Kim, C. Y., Cheng, L., Liu, J. L.-C., Zheng, C., He, X., & **Mutlu, B.** SHRIMP: Iterative Refinement of Robot Task Plans. *ACM Symposium on User Interface Software and Technology (UIST '26)*.

Rahman, M. A., Hatch, P., Ho, H.-R., Felix, I. A., **Mutlu, B.**, & Michaelis, J. E. HomeGuide: Empowering Teachers with a Generative AI Authoring System for Personalized Robot-Assisted Learning. *ACM Symposium on User Interface Software and Technology (UIST '26)*.

Johnson, H. L., Nonnenkamp, J., **Mutlu, B.**, & Chatterjee, R. "I'm trying not to get hacked:" How Adults with Intellectual and Developmental Disabilities Navigate Security and Privacy Notifications. *ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '26)*.

Lee, C. P., Lee, M. K., & **Mutlu, B.** From Tool to Agent: How Worker Needs Reorganize Across the Agentic Roles of Workplace AI. *ACM International Conference on Human-Agent Interaction (HAI '26)*.

Journal Articles (*80*)

2026 Jacobs, L., **Mutlu, B.**, Radwin, R., & Smeeding, T. Cobots as Workforce Partners: Overcoming Barriers Through Policy Opportunities. *Journal of Policy Analysis and Management* 45 (1), e70083.

Du, J., Xu, M., Hu, Y., Sun, X., **Mutlu, B.**, & Ponto, K. Toward Real-Time High-Fidelity Immersive Robotic Telepresence via Online 3D Gaussian Splatting. *IEEE Robotics and Automation Letters*.

Hwang, Y., Lee, C. P., Porfirio, D., Hiatt, L. M., & **Mutlu, B.** Formal Methods in Robot End-User Development: Progress, Gaps, and Opportunities. *Foundations and Trends in Robotics*, 13(3), 273--349.

Lin, T. H., Chen, G., **Mutlu, B.**, Trafton, J. G., & Sebo, S. The Reduced-Length Connection--Coordination Rapport (CCR) Scale. *ACM Transactions on Human-Robot Interaction*, 15(3), 1--29.

Sullivan, D., Patel, N., Kakonge, L., Kim, C. Y., Hu, Y., Johnson, H. L., Toma, C., Duff, M. C., Turkstra, L., & **Mutlu, B.** Digital Aids for Social Media in Adults With Traumatic Brain Injury: Longitudinal Evaluation Study. *JMIR Rehabilitation and Assistive Technologies*, 13, e83639.

2025 Landucci, G., Gustafson Sr, D. H., Mares, M. L., Pe-Romashko, K., Curtin, J. J., Hu, Y., ... & **Mutlu, B**. Using Smart Displays to Implement an eHealth System for Older Adults With Multiple Chronic Conditions: Randomized Controlled Trial. *JMIR Aging*, 8, e75991.

Sullivan, D., White, N. T., Hu, Y., DW Clifton, J., & **Mutlu, B**. Robot Primals: Exploring World Beliefs as a Source for Robot Behavior Design. *ACM Transactions on Human-Robot Interaction*, 15(1), 1–23.

Konstant, A., White, N., **Mutlu, B**., & Radwin, R. G. Ergonomics analysis for a simulation approach to human-robot collaborative task allocation. *IISE Transactions on Occupational Ergonomics and Human Factors*, 1–11.

Wright, L. L., Vegesna, P., Michaelis, J. E., **Mutlu, B**., & Sebo, S. Robotic reading companions can mitigate oral reading anxiety in children. *Science Robotics*, 10(106), eadu5771.

Michaelis, J. E., & **Mutlu, B**. How can educational robots enhance family life? Through careful integration. *Science Robotics*, 10(106), eadu6123.

Johnson, H., & **Mutlu, B**. Accessible Technology for Adults with Down Syndrome: A Scoping Review. *ACM Transactions on Accessible Computing*, 18(3), 1–57.

Zhang, S., Li, J., Cagiltay, B., Kirkorian, H., **Mutlu, B**., & Fawaz, K. A qualitative exploration of parents and their children's uses and gratifications of ChatGPT. *Family Relations*, 74(3), 1056–1071.

Konstant, A., Orr, N., Hagenow, M., Gundrum, I., Hu, Y. H., **Mutlu, B**., ... & Radwin, R. G. Human–Robot Collaboration With a Corrective Shared Controlled Robot in a Sanding Task. *Human Factors*, 67(3), 246–263.

2024 Wohltjen, S., Colón, Y. I., Zhu, Z., Miller, K., Huang, W. C., **Mutlu, B**., ... & Niedenthal, P. M. Uniting theory and data: the promise and challenge of creating an honest model of facial expression. *Cognition and Emotion*, 1–15.

Toma, C. L., Hwang, J., Kakonge, L., Morrow, E. L., Turkstra, L. S., **Mutlu, B**., & Duff, M. C. Does Facebook use provide social benefits to adults with traumatic brain injury? *Cyberpsychology, Behavior, and Social Networking*, 27(3), 214–220.

Ramesh, B., Konstant, A., Praveena, P., Senft, E., Gleicher, M., **Mutlu, B**., ... & Radwin, R. G. Manually acquiring targets from multiple viewpoints using video feedback. *Human Factors*, 66(2), 470–489.

Liu, L., Schoen, A. J., Henrichs, C., Li, J., **Mutlu, B**., Zhang, Y., & Radwin, R. G. Human robot collaboration for enhancing work activities. *Human Factors*, 66(1), 158–179.

2023 Clough, S., Tanguay, A. F., **Mutlu, B**., Turkstra, L. S., & Duff, M. C. How do Individuals With and Without Traumatic Brain Injury Interpret Emoji? Similarities and Differences in Perceived Valence, Arousal, and Emotion Representation. *Journal of Nonverbal Behavior*, 47(4), 489–511.

Hagenow, M., Senft, E., Orr, N., Radwin, R., Gleicher, M., **Mutlu, B**., Posey, D., & Zinn, M. Coordinated Multi-Robot Shared Autonomy Based on Scheduling and Demonstrations. *IEEE Robotics and Automation Letters*, 8(12), 8335–8342.

Turkstra, L. S., Hosseini-Moghaddam, S., **Mutlu, B**., & Duff, M. C. Facial affect recognition in context in adults with and without TBI. *Frontiers in Psychology*, 14, 1111686.

Clough, S., Morrow, E., **Mutlu, B**., Turkstra, L., & Duff, M. C. Emotion recognition of faces and emoji in individuals with moderate-severe traumatic brain injury. *Brain Injury*, 1–15.

2022 Zhao, F., Lim, H., Morrow, E. L., Turkstra, L. S., Duff, M. C., & **Mutlu, B**. Designing evidence-based support aids for social media access for individuals with moderate-severe traumatic brain injury: A preliminary acceptability study. *Frontiers in Digital Health*, 4, 991814.

Ahmadi, R., Lim, H., **Mutlu, B**., Duff, M., Toma, C., & Turkstra, L. Facebook Experiences of Users With Traumatic Brain Injury: A Think-Aloud Study. *JMIR Rehabilitation and Assistive Technologies*, 9(4), e39984.

Henry, K. E., Kornfield, R., Sridharan, A., Linton, R. C., Groh, C., Wang, T., Wu, A., **Mutlu, B**., & Saria, S. Human–machine teaming is key to AI adoption: clinicians' experiences with a deployed machine learning system. *NPJ Digital Medicine*, 5(1), 1–6.

Ramesh, B., Konstant, A., Praveena, P., Senft, E., Gleicher, M., **Mutlu, B**., ... & Radwin, R. G. Manually Acquiring Targets From Multiple Viewpoints Using Video Feedback. *Human Factors*.

Gustafson, D. H., Mares, M. L., Johnston, D. C., Landucci, G., Pe-Romashko, K., Vjorn, O. J., ... & **Mutlu, B**. Using Smart Displays to Implement an eHealth System for Older Adults With Multiple Chronic Conditions: Protocol for a Randomized Controlled Trial. *JMIR Research Protocols*, 11(5), e37522.

Zhao, F., Wood, A., **Mutlu, B**., & Niedenthal, P. Faces synchronize when communication through spoken language is prevented. *Emotion*.

2021 Kornfield, R., Rae, I., & **Mutlu, B**. So close and yet so far: How embodiment shapes the effects of distance in remote collaboration. *Communication Studies*.

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2020 Schoen, A., Henrichs, C., Strohkirch, M., & **Mutlu, B**. Authr: A Task Authoring Environment for Human-Robot Teams. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2020)*.

Zhao, F., Henrichs, C., & **Mutlu, B**. Task Interdependence in Human-Robot Teaming. *Proceedings of the 29th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2020)*.

Cagiltay, B., Ho, H. R., Michaelis, J. E., & **Mutlu, B**. Investigating family perceptions and design preferences for an in-home robot. *Proceedings of the Interaction Design and Children Conference (IDC 2020)*.

Porfirio, D., Sauppé, A., Albarghouthi, A., & **Mutlu, B**. Transforming Robot Programs Based on Social Context. *Proceedings of the 2020 ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2020)*.

Michaelis, J. E., Siebert-Evenstone, A., Shaffer, D., & **Mutlu, B**. Collaborative or Simply Uncaged? Understanding Human-Cobot Interactions in Automation. *Proceedings of the 2020 ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2020)*.

Rakita, D., **Mutlu, B**., & Gleicher, M. Effects of Onset Latency and Robot Speed Delays on Mimicry-Control Teleoperation. *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2020)*.

Terzioglu, Y., **Mutlu, B**., & Sahin, E. Designing Social Cues for Collaborative Robots: The Role of Gaze and Breathing in Human-Robot Collaboration. *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2020)*.

Praveena, P., Rakita, D., **Mutlu, B**., & Gleicher, M. Supporting Perception of Weight through Motion-induced Sensory Conflicts

in Robot Teleoperation. *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2020)*. Honorable Mention Award (Top 12 in 279).

2019 Porfirio, D., Fisher, E., Sauppé, A., Albarghouthi, A., & **Mutlu, B**. Bodystorming Human-Robot Interactions. *Proceedings of the 31st ACM User Interface Software and Technology Symposium (UIST 2019), New Orleans, Louisiana*.

Michaelis, J. E., & **Mutlu, B**. Supporting Interest in Science Learning with a Social Robot. *Proceedings of the 18th ACM International Conference on Interaction Design and Children*. Honorable Mention Award (Top 7 in 142).

Rakita, D., **Mutlu, B**., & Gleicher, M. Remote Telemanipulation with Adapting Viewpoints in Visually Complex Environments. *Robotics: Science and Systems (RSS 2019) XV*.

Praveena, P., Rakita, D., **Mutlu, B**., & Gleicher, M. User-Guided Offline Synthesis of Robot Arm Motion from 6-DoF Paths. *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*.

Rakita, D., **Mutlu, B**., & Gleicher, M. STAMPEDE: A Discrete-Optimization Method for Solving Pathwise-Inverse Kinematics. *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*.

Praveena, P., Subramani, G., **Mutlu, B**., & Gleicher, M. Characterizing Input Methods for Human-to-robot Demonstrations. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2019)*.

2018 Porfirio, D, Sauppé, A., Albarghouthi, A., & **Mutlu, B**. Authoring and Verifying Human-Robot Interactions. *Proceedings of the 31st ACM User Interface Software and Technology Symposium (UIST 2018), Berlin, Germany*. Best Paper Award (Top 3 in 375 submissions).

Paxton, C., Jonathan, F., Hundt, H., **Mutlu, B**., & Hager, G. D. Evaluating Methods for End-User Creation of Robot Task Plans. *Proceedings of the IEEE/RAS International Conference on Intelligent Robots (IROS 2018)*.

Rakita, D., **Mutlu, B**., & Gleicher, M. RelaxedIK: Real-time Synthesis of Accurate and Feasible Robot Arm Motion. *Robotics: Science and Systems (RSS 2018)*.

Rakita, D., **Mutlu, B**., & Gleicher, M. An Autonomous Dynamic Camera Method for Effective Remote Teleoperation. *Proceedings of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018)*. Best Paper Award: Technical Advances in HRI (Top 4 in 206 submissions).

Rakita, D., **Mutlu, B**., & Gleicher, M. Shared Dynamic Curves: A Shared-Control Telemanipulation Method for Motor Task Training. *Proceedings of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018)*.

2017 Liu, O. D., Rakita, D., **Mutlu, B**., & Gleicher, M. Understanding Human-Robot Interaction in Virtual Reality. *Proceedings of the 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2017), Lisbon, Portugal*.

Pejsa, J., Gleicher, M., & **Mutlu, B**. Who, Me? How Virtual Agents Can Shape Conversational Footing in Virtual Reality. *Proceedings of the International Conference on Intelligent Virtual Agents (IVA 2017), Stockholm, Sweden*.

Michaelis, J., & **Mutlu, B**. Someone to Read with: Design of and Experiences with an In-Home Learning Companion Robot for Reading. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2017), Denver, CO*.

Andrist, D., Gleicher, M., & **Mutlu, B**. Looking Coordinated: Bidirectional Gaze Mechanisms for Collaborative Interaction with Virtual Characters. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2017), Denver, CO*. Honorable Mention (Top 97 in 2424 submissions).

Choi, M., Kornfield, R., Takayama, L., & **Mutlu, B**. Movement Matters: Effects of Motion and Mimicry on Perception of Similarity and Closeness in Robot-Mediated Communication. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2017), Denver, CO*.

Rakita, D., **Mutlu, B**., & Gleicher, M. A Motion Retargeting Method for Effective Mimicry-based Teleoperation of Robot Arms. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2017), Vienna, Austria*.

2016 Rakita, D., **Mutlu, B**., & Gleicher, M. Motion synopsis for robot arm trajectories. *Proceedings of the IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2016), New York City, NY*.

Bodden, C., Rakita, D., **Mutlu, B**., & Gleicher, M. Evaluating intent-expressive robot arm motion. *Proceedings of the IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2016), New York City, NY*.

Huang, C.-M., & **Mutlu, B**. Anticipatory Robot Control for Efficient Human-Robot Collaboration. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2016), Christchurch, New Zealand*.

2015 Huang, C.-M., **Mutlu, B**., & Cakmak, M. Adaptive Coordination Strategies for Human-Robot Handovers. *Proceedings of Robotics: Science and Systems (RSS 2015)*.

Sauppé, A., & **Mutlu, B**. The Social Impact of a Robot Co-Worker in Industrial Settings. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2015), Seoul, South Korea*. Best Paper Award (Top 21 in 2150 submissions).

Johnson, S., Rae, I., **Mutlu, B**., & Takayama, L. Can You See Me Now? How Field of View Affects Collaboration in Robotic Telepresence. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2015), Seoul, South Korea*.

Andrist, S., **Mutlu, B**., & Tapus, A. Look Like Me: Matching Robot Personality via Gaze to Increase Motivation. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2015), Seoul, South Korea*. Honorable Mention (Top 119 in 2150 submissions).

Szafir, D., **Mutlu, B**., & Fong, T. Designing Mechanisms to Communicate Directionality in Flying Robots. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2015), Portland, OR*.

Andrist, S., Ziadee, M, Boukaram, H.-A., Sakr, M., & **Mutlu, B**. Effects of Culture on the Credibility of Robot Speech: A Comparison between English and Arabic. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2015), Portland, OR*.

Sauppé, A., Szafir, D., Huang, C.-M., & **Mutlu, B**. From 9 to 90: Engaging Learners of All Ages. *Proceedings of the 46th ACM Technical Symposium on Computer Science Education (SIGCSE 2015), Kansas City, MO*.

Johnson, S., Gibson, M., & **Mutlu, B**. Handheld or Handsfree?: Remote Collaboration via Lightweight Head-Mounted Displays and Handheld Devices. *Proceedings of the ACM Conference on Computer-Supported Collaborative Work and Social Computing (CSCW 2015), Vancouver, BC, Canada*.

2014 Ruhland, K., Andrist, S., Peters, C., Badler, J., Badler, N., Gleicher, M., **Mutlu, B**., & McDonnell, R. Look me in the eyes: A survey of eye and gaze animation for virtual agents and artificial systems. *EG 2014, STAR (State of The Art Report)*.

Sauppé, A., & **Mutlu, B**. Effective Task Training Strategies for Instructional Robots. *Proceedings of Robotics: Science and Systems (RSS 2014)*.

Sauppé, A., & **Mutlu, B**. Design Patterns for Exploring and Prototyping Human-Robot Interactions. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2014), Toronto, ON, Canada*.

Rae, I., **Mutlu, B**., & Takayama, L. Bodies in Motion: Mobility, Presence, and Task Awareness in Telepresence. *Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2014), Toronto, ON, Canada*.

Andrist, S., Tan, X. Z., Gleicher, M., & **Mutlu, B**. Conversational Gaze Aversion for Humanlike Robots. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014), Bielefeld, Germany*. Best Paper Award Nominee (Top 5 in 132 submissions).

Huang, C.-M., & **Mutlu, B**. Learning-Based Modeling of Multimodal Behaviors for Humanlike Robots. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014), Bielefeld, Germany*.

Szafir, D., **Mutlu, B**., & Fong, T. Communication of Intent in Assistive Free Flyers. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014), Bielefeld, Germany*.

Sauppé, A., & **Mutlu, B**. Robot Deictics: How Gesture and Context Shape Referential Communication. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014), Bielefeld, Germany*.

Sauppé, A., & **Mutlu, B**. How Social Cues Shape Task Coordination and Communication. *Proceedings of the ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2014), Maryland, MD*.

2013 Miller, S., **Mutlu, B**., & Lee, J. D. Artifact Usage, Context, and Privacy Management in Logging and Tracking Personal Health Information in Older Adults. *Proceedings of the 2013 International Annual Meeting of the Human Factors and Ergonomics Society (HFES 2013)*.

Hoque, E., Courgeon, M., Martin, J.-C., **Mutlu, B**., Picard, R. MACH: My Automated Conversation coach. *Proceedings of the*

12th ACM International Joint Conference on Pervasive and Ubiquitous Computing (Ubicomp '13), Zurich, Switzerland. Best Paper Award (Top 5 in 392 submissions).

Andrist, S., **Mutlu, B**., & Gleicher, M. Conversational Gaze Aversion for Virtual Agents. *Proceedings of Intelligent Virtual Agents (IVA 2013), Edinburgh, UK*. Highly Commended Paper Award (Top 3 in 61 submissions).

Huang, C.-M., & **Mutlu, B**. Modeling and Evaluating Narrative Gestures for Humanlike Robots. *Proceedings of Robotics: Science and Systems Conference (RSS 2013), Berlin, Germany*. Best Paper Award Runner-Up (Top 5 in 183 submissions).

Szafir, D., & **Mutlu, B**. ARTFuL: Adaptive Review Technology for Flipped Learning. *Proceedings of the 2013 ACM annual conference on Human Factors in Computing Systems (CHI 2013), Paris, France*.

Rae, I., Takayama, L., & **Mutlu, B**. In-body Experiences: Embodiment, Control, and Trust in Embodied Mediated Communication. *Proceedings of the 2013 ACM annual conference on Human Factors in Computing Systems (CHI 2013), Paris, France*.

Andrist, S., Spannan, E., & **Mutlu, B**. Rhetorical Robots: Making Robots More Effective Speakers Using Linguistic Cues of Expertise. *Proceedings of the 8th ACM/IEEE Conference on Human-Robot Interaction (HRI 2013), Tokyo, Japan*.

Rae, I., Takayama, L., & **Mutlu, B**. The Influence of Height on Robotic Communication Products. *Proceedings of the 8th ACM/IEEE Conference on Human-Robot Interaction (HRI 2013), Tokyo, Japan*.

2012 Terrell, A., & **Mutlu, B**. A Regression-based Approach to Modeling Addressee Backchannels. *Proceedings of the 13th Annual Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL 2012), Seoul, South Korea*.

Szafir, D., & **Mutlu, B**. Pay Attention! Designing Adaptive Agents that Monitor and Improve User Engagement. *Proceedings of the 30th ACM/SIGCHI Conference on Human Factors in Computing (CHI 2012), Austin, TX*.

Rae, I., Takayama, L., & **Mutlu, B**. One of the Gang: Supporting In-group Behavior for Embodied Mediated Communication. *Proceedings of the 30th ACM/SIGCHI Conference on Human Factors in Computing (CHI 2012), Austin, TX*.

Andrist, S., Pejsa, T., **Mutlu, B**., Gleicher, M. Designing Effective Gaze Mechanisms for Virtual Agents. *Proceedings of the 30th ACM/SIGCHI Conference on Human Factors in Computing (CHI 2012), Austin, TX*.

Huang, C.-M., & **Mutlu, B**. Robot Behavior Toolkit: Generating Effective Social Behaviors for Robots. *Proceedings of the 7th ACM/IEEE Conference on Human-Robot Interaction (HRI 2012), Boston, MA*.

Chidambaram, V., Chiang, Y.-H., & **Mutlu, B**. Designing Persuasive Robots: How Robots Might Persuade People Using Vocal and Nonverbal Cues. *Proceedings of the 7th ACM/IEEE Conference on Human-Robot Interaction (HRI 2012), Boston, MA*.

2011 Khan, F., Zhu, J., & **Mutlu, B**. How Do Humans Teach: On Curriculum Learning and Teaching Dimension. *Proceedings of Advances in Neural Information Processing Systems (NIPS 2011), Granada, Spain*.

Mumm, J., & **Mutlu, B**. Human-Robot Proxemics: Physical and Psychological Distancing in Human-Robot Interaction. *Proceedings of the 6th ACM/IEEE Conference on Human-Robot Interaction (HRI 2011), Lausanne, Switzerland*. Best Paper Award (Top 3 in 149 submissions).

2009 **Mutlu, B**., Shiwa, T., Kanda, T., Ishiguro, H., & Hagita, N. Footing in Human-Robot Conversations: How Robots Might Shape Participant Roles Using Gaze Cues. *Proceedings of the 4th ACM/IEEE Conference on Human-Robot Interaction (HRI 2009), San Diego, CA*. Best Paper Award (1 in 120 submissions).

Mutlu, B., Yamaoka, F., Kanda, T., Ishiguro, H., & Hagita, N. Nonverbal Leakage in Robots: Communication of Intentions through Seemingly Unintentional Behavior. *Proceedings of the 4th ACM/IEEE Conference on Human-Robot Interaction (HRI 2009), San Diego, CA*.

2008 **Mutlu, B**., & Forlizzi, J. Robots in Organizations: Workflow, Social, and Environmental Factors in Human-Robot Interaction. *Proceedings of the 3rd ACM/IEEE Conference on Human-Robot Interaction (HRI 2008), Amsterdam, The Netherlands*. Best Paper Award (1 in 134 submissions).

2007 **Mutlu, B**., Krause, A., Forlizzi, J., Guestrin, C., & Hodgins, J. Robust, Low-Cost, Non-Intrusive Recognition of Seated Postures. *Proceedings of the 20th ACM Symposium on User Interface Software and Technology (UIST 2007), Newport, RI*.

2006 **Mutlu, B**., Forlizzi, J., Nourbakhsh, I., & Hodgins, J. The Use of Abstraction and Motion in the Design of Social Interfaces. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS 2006), State College, PA*.

Mutlu, B., Forlizzi, J., & Hodgins, J. A Storytelling Robot: Modeling and Evaluation of Human-like Gaze Behavior. *Proceedings of the IEEE-RAS Conference on Humanoid Robots (Humanoids 2006), Genova, Italy*.

Mutlu, B., Osman, S., Forlizzi, J., Hodgins, J., & Kiesler, S. Task Structure and User Attributes as Elements of Human-Robot Interaction Design. *Proceedings of the 15th IEEE Symposium on Robot and Human Interactive Communication (RO-MAN 2006), Hatfield, U.K.*.

2005 Forlizzi, J., DiSalvo, C., Zimmerman, J., **Mutlu, B**., & Hurst, A. The SenseChair: The lounge chair as an intelligent assistive device for elders. *Proceedings of the ACM Conference on Designing for User Experiences (DUX 2005), Fort Mason, CA*.

2004 Forlizzi, J., **Mutlu, B**., & DiSalvo, C. A Study of How Products Contribute to the Emotional Aspects of Human Experience. *Proceedings of the 2004 Design & Emotion Conference, Ankara, Turkey*.

Mutlu, B., & Forlizzi, J. The Chaotic Nature of Human Experience: An Alternative Approach to Determinacy in Understanding Emotions and Experience. *Proceedings of the 2004 Design & Emotion Conference, Ankara, Turkey*.

2003 **Mutlu, B**., & Er, H. A. Design Innovation: Historical and Theoretical Perspectives on Product Innovation by Design. *Proceedings of the 5th European Academy of Design Conference, Barcelona, Spain*.

Teaching & Curriculum Development

Selected courses and curricular initiatives I developed and taught.

Instruction & Course Development

Designed and taught a comprehensive Human-Computer Interaction (HCI) curriculum serving computer science and interdisciplinary undergraduate and graduate students. I have consistently earned strong student evaluations (typically above 6.3/7.0). Courses taught include:

2026–present *CS-271 Interaction Design Studio* – Undergraduate studio course on interaction design fundamentals.

2021–present *CS-772 Building Interactive Systems* – Graduate-level course at the intersection of HCI, machine learning, robotics, and systems.

2009–present *CS/Psych/EdPsych-770 Human-Computer Interaction* – Graduate seminar integrating HCI theory and methods.

2019–present *CS-571 Building User Interfaces* – UX design and development course covering web, mobile, voice interfaces.

2009–present *CS-270 Fundamentals of HCI* – Introductory, non-major course focused on user-centered design, usability.

2009–present *CS-570 Introduction to HCI* – Hands-on course for CS majors on real-world applications of HCI methods.

Program & Curriculum Leadership

2025–present Led the development of a professional master's program in robotics, to be jointly offered by the Departments of Computer Sciences & Mechanical Engineering.

2020–present Director and PI of *INTEGRATE*, an NSF NRT training program spanning computing, engineering, psychology, economics, and policy focused on robotics and the future of work.

2018–2019 Developed and offered "Agile Research Studio," a credit-bearing undergraduate research experience.

2017–present Co-creator and instructor for *Mad UX*, a remote graduate certificate in UX design (in collaboration with the iSchool).

2009– Developed and led the HCI PhD qualifying exam

Graduate Advising & Student Mentoring

Across my career, I have advised 28 PhD students (graduated and current), mentored 6 postdoctoral scholars, hosted 8 international visiting scholars and students, and supervised 11 MS students (graduated and current) as well as many undergraduate researchers.

Past PhD Advisees

2020–2025 Dr. Bengisu Çagiltay (CS) *Koc University, Faculty*

2019–2025 Dr. Laura Stegner (CS) *George Washington University, Faculty*

Dr. Nathan White (CS) *Intrinsic*

2017–2024 Dr. Olivia Zhao (Psych) *Apple*

Dr. Pragathi Praveena (CS) *Carnegie Mellon University, Postdoctoral Researcher*

2016–2024 Dr. Andrew Schoen (CS) *Semio*

2016–2022 Dr. David Porfirio (CS) *George Mason University, Faculty*

2016–2019 Dr. Joseph Michaelis (Ed Psych) *University of Chicago Illinois, Faculty*

2015–2022 Dr. Daniel Rakita (CS) *Yale University, Faculty*

2012–2015 Dr. Daniel Szafir (CS) *UNC-Chapel Hill, Faculty*

2011–2015 Dr. Chien-Ming Huang (CS) *Johns Hopkins University, Faculty*

2010–2016 Dr. Sean Andrist (CS) *Microsoft Research*

Dr. Tomislav Pejsa (CS) *Meta*

2010–2015 Dr. Irene Rae (CS) *Google*

Dr. Allison (Terrell) Sauppé (CS) *University of Wisconsin–La Crosse, Faculty*

2010–2014 Dr. Dee Miller (ISyE) *Adobe*

Current PhD Advisees

2025-present Heidi Spalitta (CS)

Xinyu Jessica Wang (CS)

Xinning He (CS)

2025-present Michael Xu (CS)

Yuna Hwang (CS)

2022-present Hailey Johnson (CS)

2021-present Amy Koike (CS)

Callie Kim (CS)

Christine Lee (CS)

2020-present Dakota Sullivan (CS)

Yaxin Hu (CS)

Irene Ho (Ed Psych/CS)

Past Postdoctoral Advisees

2023-2025 Dr. Arissa J. Sato (CS)

2021-2024 Dr. Sophie Wohltjen (Psych) *University of Tennessee, Faculty*

Dr. Hajin Lim (CS) *Seoul National University, Faculty*

2019-2022 Dr. Emmanuel Senft (CS) *Idiap Research Institute, Group Lead*

Current Postdoctoral Advisees

2025–present Dr. Tugce Nur Pekcetin (CS) *Fulbright Fellow*

Dr. Serena Ge Guo (iSchool)

Service & Leadership

Selected roles reflecting leadership in the HCI, robotics, and design research communities.

Scholarly Leadership

2026–present Thrust Leader (Thrust 3), *NSF Engineering Research Center for Human AugmentatioN via Dexterity (HAND)*

2024–present UW–Madison Site Lead, *NSF Engineering Research Center for Human AugmentatioN via Dexterity (HAND)*

2020–present Secretary-Treasurer, *Human-Computer Interaction Consortium (HCIC)*

2013–2020 Member, Board of Governors (UW–Madison representative), *Human-Computer Interaction Consortium (HCIC)*

2018–2021 Co-chair, *Steering Committee of the ACM/IEEE Human-Robot Interaction (HRI) Conference*

2011–2014 Elected Member, *Steering Committee of the ACM/IEEE Human-Robot Interaction (HRI) Conference*

Major Editorial Roles

2018–2024 Founding Chief Editor, *Frontiers in Robotics and AI* (HRI section)

2017–present Associate Editor, *Human–Computer Interaction Journal*

2020–present Associate Editor, *Foundations and Trends in Human–Computer Interaction*

2013–2016 Associate Editor, *Journal of Human–Robot Interaction*

2013–2017 Associate Editor, *IEEE Transactions on Affective Computing*

2011–2013 Associate Editor, *Journal of Entertainment Computing*

2012–2013 Managing Technical Editor, *Journal of Human–Robot Interaction*

Conference Organization

2017 General Co-Chair, *ACM/IEEE HRI Conference*

2016 Program Co-Chair, *IEEE ROMAN Conference*

2015 Program Co-Chair, *ACM/IEEE HRI Conference*

2013–2014 Program Subcommittee Co-chair, *ACM Conference on Human Factors in Computing (CHI)*

2011 Program Co-Chair, *International Conference on Social Robotics (ICSR)*

Service at the University & Department

Selected university- and department-level contributions.

University Service

2026–present Co-Captain, *Embodied AI Moonshot*, College of Engineering (with Tony McDonald; College of Computing & AI co-captain)

2025–present Faculty Rights and Responsibilities Committee

2022–2024 Physical Sciences Divisional Committee (Vice Chair in Year 2)

Department Service (Computer Sciences)

2011–2021 Faculty Hiring Committee (Chair, 2018–2021)

2021–2024 New CDIS Building Committee

2019–2020 Budget Committee

2020–2021 Chair's Advisory Committee

2009–2024 Publicity Committee

2012–2015 Facilities Committee

Additional Campus Roles

2009–2019 Faculty Advisor, Undergraduate Research Scholars

2011–2013 Advisory Board Member, DesignLab

2011–2013 Advisory Board Member, WID Living Environments Laboratory

Selected Media & Public Engagement

Selected coverage in major media outlets.

The Economist — Interviewed for feature on robots in human work ("Our friends electric").

WIRED — Interviewed for "This Warehouse Robot Reads Human Body Language."

MIT Technology Review — Multiple articles featuring research on social robotics and robot behavior design.

New Scientist — Extensive coverage and interviews on robot communication and education.

Popular Science — Research featured in articles on educational and social robots.

Discover Magazine — Research featured in story on robotic reading companions for children.

Voice of America / Science Nation — Broadcast coverage of research on adaptive and instructional robotics.