TERRAN MOTT

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I am a mixed-methods researcher at the intersection of human-computer interaction and human-centered design. I care about creating sincerely beneficial technology that can succeed in real-world contexts.

EDUCATION

PhD in Human-Robot Interaction 2020 - May 2024
Colorado School of Mines — Advisor: Dr. Tom Williams

Bachelors in Mathematics & Economics 2016 - 2020
Grinnell College — Team Captain: NCAA Cross Country

SKILLS:
Research: Interviews; Usability tests; Design workshops; Experiments; Online surveys (mturk, Prolific)
Data Science: Bayesian & Frequentist Stats; Econometrics; R; JASP; STATA; Python (Pandas)
Programming: Python (Scikit-learn, TensorFlow, Networkxm OpenCV); ROS; Matlab; C; Java; Javascript
Misc: IRB Compliance; Figma

COURSES:
Design: Community-Based Research; Social & Collaborative Computing; Sci & Tech Studies; Robot Ethics
Computer Science: Artificial Intelligence; Advanced Machine Learning; Computer Vision; Mechatronics

TEACHING:
Lecture: Human-Centered Robotics   **TA:** Human-Robot Interaction, Discrete Math

PROFESSIONAL EXPERIENCE

- **Product Management Intern, Google X**
  - Recipient of Product Management Internship at Google X in 2023. The offer was canceled due to layoffs, I have included it to affirm my interest in product-focused industry roles.

- **Board of Directors Member at Peerbots** 2020 - 2022
  - Peerbots is a nonprofit creating robot teleoperation software for education and telehealth.
  - Built relationships with users and represented Peerbots at community events.
  - Led user-centered structural and visual improvements to Peerbot's product:
    - Conducted in-depth ethnographic interviews with early adopters.
    - Conducted group usability tests with healthcare providers new to Peerbot's product.

- **Graduate Researcher & Instructor, Colorado School of Mines** 2020 - present
  - Published mixed-methods user experience research, including interviews, usability tests, and experiments.
  - Researched computational natural language understanding and generation for social technologies
  - Won the 2023 Robot Ethics Design Competition at the IEEE ICRA conference
  - Developed lecture and project materials and taught Human-Centered Robotics to 80 students.
  - Supervised undergraduate and master's projects, including for the Google ExploreCSR Program

- **Information Modeling and Analytics Intern, Pacific Northwest National Lab** summer 2019
  - Developed improvements for Hypernetx, an open-source Python library for applied topological data science.
  - Researched computational tools for network science and computational social science applications at scale.

- **Undergraduate Research Fellow in Mathematics, The Santa Fe Institute** summer 2018
  - Developed combinatorial methods to analyze high-dimensional information for applications in theoretical mathematics and applied systems theory.

SELECTED PUBLICATIONS

Qualitative User Research:

1. **Terran Mott**, Saad Elbeleidy, and Tom Williams. *Supporting Early Adopters and Novice Users of Socially Assistive Robots in Therapy & Telehealth.* (in preparation for THRI).

2. Saad Elbeleidy and **Terran Mott**, et. al. *Beyond the Session: Centering Teleoperators in Socially Assistive Robot-Child Interactions Reveals the Bigger Picture.* ACM CSCW Conference. 2023.

3. **Terran Mott**, Tom Williams. *Confrontation and Cultivation: Understanding Perspectives on Robot Responses to Norm Violations.* IEEE RO-MAN Conference. 2023.

4. **Terran Mott**, Tom Williams. *How Can Dog Handlers Help Us Understand the Future of Wilderness Search & Rescue Robots?* IEEE RO-MAN Conference. 2023.

User Studies & Usability Tests:

5. **Terran Mott**, Tom Williams. *What a Thing to Say! Which Linguistic Politeness Strategies Should Robots Use in Noncompliance Interactions?* ACM/IEEE HRI Conference. 2024.

6. **Terran Mott**, Aaron Fanganello, and Tom Williams. *A Mixed-Methods Assessment of Robots' Use of Human-like Linguistic Politeness in Noncompliance Interactions.* (Under review at ACM Transactions on Human-Robot Interaction.)

7. Saad Elbeleidy, **Terran Mott**, et.al. *Practical Considerations for Deploying Robot Teleoperation in Therapy and Telehealth.* IEEE RO-MAN Conference. 2022.

Responsible AI:

8. **Terran Mott**, et. al. *Degrees of Freedom: A Storytelling Game that Supports Social Robotics Technology Literacy.* (in preparation).

9. **Terran Mott**, Tom Williams. *Rube-Goldberg Machines, Transparent Technology, and the Morally Competent Robot.* Late Breaking Report at ACM/IEEE HRI Conference. 2023.

10. **Terran Mott**, Tom Williams. *Hidden Scarecrows: Potential Consequences of Inaccurate Assumptions About LLMs in Robotic Moral Reasoning.* (short paper in preparation).

SELECTED TALKS

- **Moral Communication in Human-Machine Teaming** *US Air Force Office of Scientific Research.* 2023.

- **Norm-Sensitivity in Human-Robot Collaboration.** *Digital Linguistics Lab, Bielefeld University.* 2023.

- **Confrontation and Cultivation: Robot Responses to Norm Violations** *IEEE RO-MAN.* 2023.

- **Dog Handlers & the Future of Wilderness Search & Rescue Robots** *IEEE RO-MAN.* 2023.

- **Deploying Robot Teleoperation in Therapy and Telehealth.** *IEEE RO-MAN.* 2022.

- **Community Futures with Social Robots.** *HRI Pioneers.* 2022.

- **Qualitative Research Methods in Social Technology** *Guest lecture in CSM HRI class.* 2021.

RECOGNITION

- **Winner**: Roboethics Design Competition at IEEE Conference on Robotics & Automation (ICRA)   2023
  - NICE: An ethically-sensitive design framework for fetch robots in care contexts

- HRI Pioneers Doctoral Consortium at ACM Conference on Human-Robot Interaction   2022

- NCAA Academic All-Conference Award   2016-2019

- National Merit Scholar