SARAH SEBO

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RESEARCH OVERVIEW

My research focuses on the development of robot teammates that promote positive team social dynamics in addition to the reliable completion of assigned tasks. My work explores behaviors and mathematical frameworks social robots can use to shape group trust, assist in mental model sharing, and improve team performance.

Key words: Human-robot interaction (HRI), robotics, trust, social collaboration, groups and teams

EDUCATION

Ph.D. in Computer Science 2014 - current
Yale University, Advisor: Brian Scassellati

B.S. in Electrical and Computer Engineering 2010 - 2014
Franklin W. Olin College of Engineering

PUBLICATIONS

Peer-Reviewed Conference Papers

C6 **Sarah Strohkorb Sebo**, Priyanka Krishnamurthi, Brian Scassellati (2019). "I Don't Believe You": Investigating the Effects of Robot Trust Violation and Repair. To appear in *Proceedings of the Fourteenth ACM/IEEE International Conference on Human Robot Interaction (HRI 2019).*
Acceptance rate: 24%

C5 Aditi Ramachandran*, **Sarah Strohkorb Sebo***, Brian Scassellati (2018). Personalized Robot Tutoring using the Assistive Tutor POMDP (AT-POMDP). To appear in *Proceedings of The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI).*
Acceptance rate: 16%, *equal contribution

C4 **Sarah Strohkorb Sebo**, Margaret Traeger, Malte Jung, Brian Scassellati (2018). The Ripple Effects of Vulnerability: The Effects of a Robots Vulnerable Behavior on Trust in Human-Robot Teams. In *Proceedings of the Thirteenth ACM/IEEE International Conference on Human Robot Interation (HRI 2018).*
Acceptance rate: 23%

C3 Nicole Salomons, Michael Van der Linden, **Sarah Strohkorb Sebo**, Brian Scassellati (2018). Humans Conform to Robots: Disambiguating Trust, Truth, and Conformity. In *Proceedings of the Thirteenth ACM/IEEE International Conference on Human Robot Interation (HRI 2018).*
Acceptance rate: 23%

C2 **Sarah Strohkorb**, Ethan Fukuto, Natalie Warren, Charles Taylor, Bobby Berry, Brian Scassellati (2016). Improving Human-Human Collaboration Between Children With a Social Robot. In *Proceedings of the 25th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2016).*
Acceptance rate: 47%

C1 **Sarah Strohkorb**, Iolanda Leite, Natalie Warren, Brian Scassellati (2015). Classification of Childrens Social Dominance in Group Interactions with Robots. In *Proceedings of the 2015 ACM on International Conference on Multimodal Interaction (ICMI 2015).*
Acceptance rate: 41%

Peer-Reviewed Workshop Papers

W4 **Sarah Strohkorb** and Brian Scassellati (2017). Cultivating Psychological Safety in Human-Robot Teams with Social Robots. In *Proceedings of the 2017 Workshop on Robots in Groups and Teams at the 20th ACM Conference on Computer-Supported Collaborative Work and Social Computing.*

W3 **Sarah Strohkorb**, Chien-Ming Huang, Aditi Ramachandran, Brian Scassellati (2016). Establishing Sustained, Supportive Human-Robot Relationships: Building Blocks and Open Challenges. In *Proceedings of the 2016 AAAI Spring Symposium on Enabling Computing Research in Socially Intelligent Human-Robot Interaction: A Community-Driven Modular Research Platform.* AAAI Press.

W2 **Sarah Strohkorb**, Brian Scassellati. Promoting Collaboration with Social Robots. In *Proceedings of the Eleventh ACM/IEEE International Conference on Human Robot Interation (HRI 2016).*

W1 **Sarah Strohkorb**, Brian Scassellati (2015). Promoting Social Collaboration between Children with a Social Robot. In *Proceedings of the 2015 AAAI Fall Symposium on AI for Human-Robot Interaction (AI-HRI 2015).* AAAI Press.

AWARDS AND HONORS

National Science Foundation Graduate Research Fellowship - Honorable Mention 2016

TEACHING EXPERIENCE

Intelligent Robotics, Yale University Fall 2016, Spring 2017, Spring 2018, Fall 2018
Teaching Assistant

CS50, Yale University Fall 2015
Teaching Assistant

Software Design, Olin College Spring 2014
Teaching Assistant

INVITED TALKS

Cornell University Oct 2018

GRANTS

The 2017 HRI Pioneers Workshop at the 2017 ACM/IEEE International Conference on Human-Robot Interaction 2017
Key personnel, contributed to grant development and writing
National Science Foundation
PI: Brian Scassellati

Travel Grants
HRI Pioneers - General Chair Organizer 2016
Yale Computer Science Department Grant to attend the Grace Hopper Celebration 2016

HRI Pioneers - Attendee 2015
HRI Student Volunteer 2015
CRA-W Grad Cohort Workshop 2015

MENTORING

Co-authored publication numbers refer to the publication lists above.

Michael Schutzman, High School Student 2018

Nicholas Chang, Yale Undergraduate 2018

Ling Dong, Yale Undergraduate 2018

Marc Harary, Yale Undergraduate 2018

Evy Roberts, Yale Undergraduate 2017 - 2019

Ely Sibarium, Yale Undergraduate 2017 - 2018

Priyanka Krishnamurthi, Yale Undergraduate 2017-2018
Publications: C6

Neil Madhavani, High School Student 2017

Rachel Ha, Yale Undergraduate 2017

Adam Erickson, Yale Undergraduate 2016

Isabelle Gallagher, High School Student 2016

Ethan Fukuto, Pomona College Undergraduate 2015
Publications: C2

Bobby Berry, Yale Undergraduate 2015
Publications: C2

Charles Taylor, Yale Undergraduate 2015
Publications: C2

Natalie Warren, Yale Undergraduate 2014 - 2015
Publications: C1, C2

SERVICE

Organizing Committee

HRI Pioneers Workshop at HRI 2017 2016-2017
General Co-Chair

Conference Paper Referee

International Conference on Human-Robot Interaction (HRI) 2017-2019
International Conference on Human Factors in Computing Systems (CHI) 2019
AAAI Conference on Artificial Intelligence (AAAI) 2019
International Conference on Robotics and Automation (ICRA) 2019
International Symposium on Robot and Human Interactive Communication (RO-MAN) 2016-2018
Interaction Design and Children (IDC) Conference 2018
International Conference on Intelligent Robots and Systems (IROS) 2017

Journal Article Referee

ACM Transactions on Human-Robot Interaction	2018
IEEE Transactions on Cognitive and Developmental Systems	2017
International Journal of Child-Computer Interaction	2017
International Journal of Social Robotics	2016

SELECTED OUTREACH

Yale Social Robotics Lab Open Houses, Yale University, New Haven CT 2015-2018
Robotics demonstrations including Nao, Keepon, and Jibo at annual lab open houses for the public, drawing approximately 100 people each time the event was held from the greater New Haven community.

Teen Science Club Presentation, Guilford Library, Guilford CT 2016
Presented information and a robotics demonstration to a group of local teens interested in robotics.

PRESS

Taking Robots to the Next Level: Small Talk and Bear Hugs?, PC Mag