

SARAH SEBO

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RESEARCH OVERVIEW

My research focuses on the development of robot teammates that enhance the social collaboration between members of a human-robot team. My work explores behaviors and mathematical frameworks social robots can use to shape group trust, increase inclusion, 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. 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). 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 Interaction (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 Interaction (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

- W5 **Sarah Strohkorb Sebo** and Brian Scassellati (2019). Enhancing Social Collaboration in Human-Robot Teams. In *Proceedings of the 2019 Pioneers Workshop at the 15th Robotics: Science and Systems Conference*.
- 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 Interaction (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
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TEACHING EXPERIENCE

Intelligent Robotics , Yale University Teaching Assistant	Fall 2016, Spring 2017, Spring 2018, Fall 2018
CS50 , Yale University Teaching Assistant	Fall 2015
Software Design , Olin College Teaching Assistant	Spring 2014

INVITED TALKS

Cornell University	Oct 2018
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GRANTS

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

Michal Lewkowicz, High School Student then Yale Undergraduate	2019
Tom Wallenstein, Yale Undergraduate	2019
Sean Hackett, Yale Undergraduate	2019
Kayleigh Bishop, Yale Undergraduate	2018-2019
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
<i>Publications: C6</i>	
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
<i>Publications: C2</i>	
Bobby Berry, Yale Undergraduate	2015
<i>Publications: C2</i>	
Charles Taylor, Yale Undergraduate	2015
<i>Publications: C2</i>	
Natalie Warren, Yale Undergraduate	2014-2015
<i>Publications: C1, C2</i>	

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
ACM Symposium on on User Interface Software and Technology (UIST)	2019
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
Robot discovers that lying about a betrayal helps to rebuild trust , New Scientist