# ALAN R. WAGNER

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## RESEARCH INTERESTS

My research borrows heavily from social psychology, behavioral economics, and artificial intelligence focusing on higher, cognitive, aspects of human-robot socialization such as relationship development, modeling of one's interactive partner, and reasoning about trust and deception. I utilize theories and methods from these fields to create robots that are capable of social interaction with an ordinary person in variety of different environments. My work has focused on the development of a framework based on social psychological and game theory that allows a robot to computationally represent its social interactions with a human. This framework has, in turn, led to insights into higher social phenomenon such as trust, deception, and stereotyping as well as computational methods that allow a robot to reason about whether a situation demands trust or warrants deception. With respect to applications, my primarily interested lies in the areas of healthcare and search and rescue. Our research on human-robot trust has, for example, focused on emergency evacuation scenarios in which a person must decide whether or not to follow a robot's evacuation directions. Overall, my research strives to positively influence both the development of interactive robot and the people that choose to use those robots.

## EDUCATION

**2009**  **PhD, Computer Science,** Georgia Institute of Technology, Atlanta, GA
Focal area: Robotics, Artificial Intelligence; Advisor: Professor Ron Arkin
Thesis Topic: The Role of Trust and Relationships in Human-Robot Social Interaction

**2001**  **MS, Computer Science,** Boston University, Boston, MA
Focal area: Artificial Intelligence

**1996**  **BA, Psychology**, Northwestern University, Evanston, IL
Focal area: Premed

## EMPLOYMENT

2014-present  **Georgia Institute of Technology**, *Georgia Tech Research Institute, Atlanta, GA*
Senior Research Scientist—Conducted research and develop research programs.

2010-2014  **Georgia Institute of Technology**, *Georgia Tech Research Institute, Atlanta, GA*
Research Scientist II —Conducted research and develop research programs.

2010  **Georgia Institute of Technology**, *Georgia Tech Research Institute, Atlanta, GA*
Postdoctoral Fellow—Conducted research.

2002-2009  **Georgia Institute of Technology**, *College of Computing, Atlanta, GA*
Graduate Research Assistant—Conducted research and assisted with research related to sponsored projects.

2008  **Department of the Navy**, *Naval Research Laboratory, Washington D.C.*
Research Intern—Conducted research related to robot auditory system.

2000-2002  **Symantec Corporation**, *Waltham, MA*
Software Engineer—Developed software for firewall applications.

1999-2000  **Speedline Technologies Corporation**, *Franklin, MA*

Software Engineer—Developed software for industrial robotic platforms.

1998-1999      **MIT/Whitehead Institute for Biomedical Research**, *Cambridge, MA*
Research and Development Engineer—Constructed robotic platforms for DNA sequencing as part of the Human Genome Project.

## SCHOLARLY ASSESSMENT

Google scholar provides citation indices (h-index and i10-index) which allow one to track and quantify their scientific productivity and impact. As of October 5, 2015, my Google Scholar profile provides the following assessment:

|            | All | Since 2011 |
|------------|-----|------------|
| Citations  | 348 | 249        |
| h-index    | 11  | 9          |
| i10-index  | 12  | 7          |

A chart of citations of my work over time generated by Google Scholar on October 5, 2015 follows:
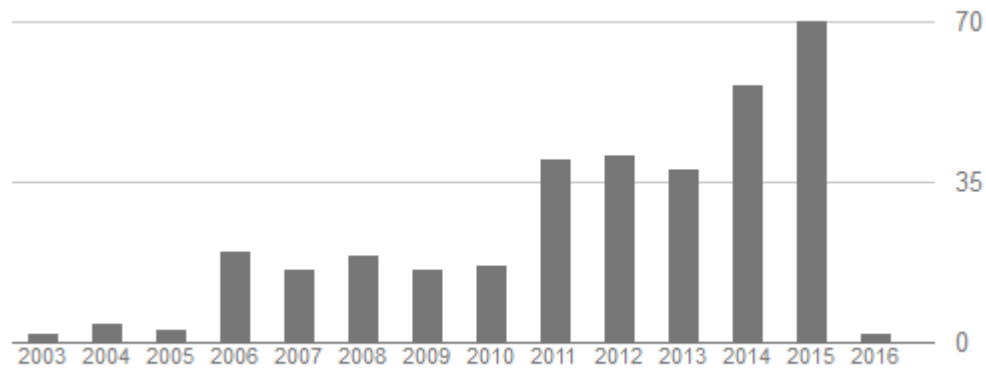


Details can be found on my Google Scholar profile page via the following link:
https://scholar.google.com/citations?user=YP1hCCMAAAAJ&hl=en

## BOOKS, BOOK CHAPTERS, AND EDITED VOLUMES

### BOOK CHAPTERS

**2016**    [BC.4] Borenstein, J. D., **Wagner, A. R.,** and Howard, A. "Ethics and Healthcare Robotics: Preventing Overtrust in Pediatric Populations", In: Robot Ethics: 2.0, P. Lin, G. Bekey, K. Abney, and R. Jenkins (Eds.), MIT press, 2016, accepted/underdevelopment.

[BC.3] Robinette, P., **Wagner, A. R.,** and Howard, A. "Investigating human-robot trust in emergency scenarios: methodological lessons learned*"*, In: The Intersection of Robust Intelligence (RI) and Trust in Autonomous Systems, W. Lawless, R. Mittu, D. Sofge, and A. R. Wagner (Eds.), Springer, 2016.

[BC.2] **Wagner, A. R.** and Erica Briscoe, "Psychological Modeling of Humans by Assistive Robots," In: Human Modeling: system-level investigation into human mechanisms for assistive technologies, Jun Ueda and Yuichi Kurita, accepted, expected June 2016.

**2014**    [BC.1] **Wagner, A. R**., "Lies and Deception: Robots that use Falsehood as a Social Strategy", In:

Robots that Talk and Listen, J. Markowitz ed., De Gruyter, pgs. 207-229, 2014.

**EDITED VOLUMES**

**2016**   [BE.1] *The Intersection of Robust Intelligence (RI) and Trust in Autonomous Systems,* W. Lawless, R. Mittu, D. Sofge, and **A. R. Wagner** (Eds.), Springer, 2016.

## REFEREED JOURNAL PUBLICATIONS

**2015**   [J.6]   Robinette, P., Howard, A., and **Wagner, A. R.** "The Effect of Robot Performance on Human-Robot Trust in Time-Critical Situations*", Transactions on Human-Machine Systems*, accepted.

[J.5]   **Wagner, A. R**., "Robots that Stereotype: Creating and Using Categories of People for Human-Robot Interaction", *Journal of Human-Robot Interaction,* 4(2), pp. 97-124, 2015.

[J.4]   **Wagner, A. R.** and Robinette, P.**,** "Towards Robots that Trust: Human Subject Validation of the Situational Conditions for Trust", *Interaction Studies*, 16(1), pp. 89-117, 2015.

**2012**   [J.3]   Arkin, R. C., Ulam, P., and **Wagner, A. R**., "Moral Decision-making in Autonomous Systems: Enforcement, Moral Emotions, Dignity, Trust and Deception", *Proceedings of the IEEE,* 100(3) pp. 571 – 589, 2012.

**2011**   [J.2]   **Wagner, A. R.**, and Arkin, R. C., "Acting Deceptively: Providing Robots with the Capacity for Deception", *The International Journal of Social Robotics*, 3, pp. 5-26, 2011.

**2008**   [J.1]   **Wagner, A. R.,** and Arkin, R. C., "Analyzing Social Situations for Human-Robot Interaction", *Interaction Studies*, 10(2), pp. 277-300, 2008.

## REFEREED CONFERENCE PUBLICATIONS

**2016**   [C.16]   Robinette, P., Howard, A., and **Wagner, A. R.,** "Overtrust of Robots in Emergency Evacuation Scenarios", ACM/IEEE International Conference on Human-Robot Interaction (HRI 2016). Christchurch, New Zealand, accepted.

**2015**   [C.15]   Robinette, P., Howard, A., and **Wagner, A. R.,** "Timing is Key For Robot Trust Repair", Seventh International Conference on Social Robotics (ICSR 2015). Paris, France, pp. 574-583, 2015.

[C.14]   Doshi, J., Kira, Z., and **Wagner, A.R.**, "From Deep Learning to Episodic Memories: Creating Categories of Visual Experiences", Proceedings from the Third Annual Conference on Advances in Cognitive Systems (ACS 2015). Atlanta, GA, 2015.

**2014**   [C.13]   Robinette, P., **Wagner, A. R.,** and Howard, A., "Assessment of Robot Guidance Modalities Conveying Instructions to Humans in Emergency Situations", Proceedings of the IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 14). Edinburgh, UK, pp. 1043 - 1049, 2014.

**2013**   [C.12]   **Wagner, A. R.,** and Doshi, J., "Who, how, where: Using Exemplars to Learn Social Concepts", Proceedings of the International Conference on Social Robotics (ICSR 13). Bristol, UK, 2013, pp 481-490.

[C.11]   Barnett, W., **Wagner, A. R.,** and Keeling, K., "Social Robots and Older Adults: Some Ethical Concerns for Researchers", Proceedings of Fifth International Conference on Internet Technologies and Applications (ITA 13). Wrexham, North Wales, UK, 2013

**2012**   [C.10]   **Wagner, A. R.,** "The Impact of Stereotyping Errors on a Robot's Social Development", Proceedings of IEEE International Conference on Development and Learning (ICDL-

EpiRob 2012). San Diego, CA, pp. 261-270, 2012.

[C.9] **Wagner, A. R.,** "Using Cluster-based Stereotyping to Foster Human-Robot Cooperation", Proceedings of IEEE International Conference on Intelligent Robots and Systems (IROS 2012). Vilamoura, Portugal, pp 1615-1622, 2012.

**2011** [C.8] **Wagner, A. R.,** and Arkin, R. C., "Recognizing Situations that Demand Trust", Proceedings of the 20th International Symposium on Robot and Human Interactive Communication (RO-MAN 2011). Atlanta, Georgia, pp. 7-14, 2011.

**2009** [C.7] **Wagner, A. R.,** and Arkin, R. C., "Robot Deception: Recognizing when a Robot Should Deceive", Proceedings of IEEE International Symposium on Computational Intelligence in Robotics and Automation (CIRA 2009). Daejeon, Korea, pp. 46 – 54, 2009.

[C.6] **Wagner, A. R.,** "Creating and Using Matrix Representations of Social Interaction", Proceedings of IEEE 4th International Conference on Human-Robot Interaction (HRI 2009). San Diego, CA, pp. 125-132, 2009.

**2007** [C.5] Ulam, P., Endo, Y., **Wagner, A. R**., and Arkin, R. C., "Integrated Mission Specification and Task Allocation for Robot Teams - Design and Implementation", Proceedings of IEEE International Conference on Robotics and Automation (ICRA 2007). Rome, Italy, pp. 4428-4435, 2007.

**2006** [C.4] **Wagner, A. R**., Endo, Y., Ulam, P., and Arkin, R. C., "Multi-Robot User Interface Modeling", In Distributed Autonomous Robotics Systems 7. M. Gini and R. Voyles (eds.). Tokyo, Japan, Springer-Verlag, pp. pp 237-248, 2006.

[C.3] **Wagner, A. R.,** and Arkin, R. C., "A Framework for Situation-based Social Interaction", Proceedings of the 15th International Symposium on Robot and Human Interactive Communication (RO-MAN 2006). Hatfield, United Kingdom, 2006. **Won best paper award**.

**2004** [C.2] **Wagner, A. R.,** and Arkin, R. C., "Multi-Robot Communication-Sensitive Reconnaissance", Proceedings of IEEE International Conference on Robotics and Automation (ICRA 2004). New Orleans, LA, USA, 2004.

**2002** [C.1] **Wagner, A. R.,** and Arkin, R. C., "Internalized Plans for Communication-Sensitive Robot Team Behaviors", Proceedings of IEEE International Conference on Intelligent Robots and Systems (IROS 2003). Las Vegas, NV, USA, 2003.

## REFEREED WORKSHOP PAPERS

**2015** [W.9] **Wagner, A. R.,** "The Most Intelligent Robots are those that Exaggerate: Examining Robot Exaggeration", AAAI Fall Symposium, Arlington, VA, 2015.

[W.8] Kira, Z, **Wagner, A. R.,** Kennedy C., Zutty, J., and Tuell, G., "STAC: A New Fusion Model for Complex Scene Characterization and Semantic Mapping", SPIE Conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications, Baltimore, USA, 2015.

**2014** [W.7] Robinette, P., **Wagner, A. R.,** and Howard, A., "Modeling Human-Robot Trust in Emergencies", AAAI Spring Symposium, Stanford University, 2014.

**2013** [W.6] **Wagner, A. R.,** "Developing Robots that Recognize when they are being Trusted", AAAI Spring Symposium, Stanford University, 2013, pp. 84-89.

[W.5] Robinette, P., **Wagner, A. R.,** and Howard, A., "Building and Maintaining Trust Between Humans and Guidance Robots in an Emergency", AAAI Spring Symposium, Stanford

University, 2013, pp 78-83.

**2011** [W.4]  **Wagner, A. R.,** "Outcome Matrix based Phrase Selection", AAAI Fall Symposium, Washington D.C., 2011.

**2009** [W.3]  Arkin, R. C., **Wagner, A. R.**, and Duncan, B., "Operator Responsibility and Lethality in Autonomous Combat Robotic Systems", Proceedings of the ICRA 2009 Workshop on RoboEthics, Kobe, Japan, 2009

**2008** [W.2]  **Wagner, A. R.,** "A Representation for Interaction", Proceedings of the ICRA 2008 Workshop: Social Interaction with Intelligent Indoor Robots (SI3R). Pasadena, CA, USA. 2008.

**1999** [W.1]  McKernan, K., McEwan, P., Morris, P., Stange-Thomann, N., Torruella-Miller, I., Sheridan, A., **Wagner, A**., Wyman, D., Pavlin, B., Benn, J., Lander, E. S., Linton, L., "Recent advances in high-throughput genomic sequencing: Magnetic Capture of Plasmids", DOE Human Genome Program Contractor-Grantee Workshop VII. Oakland, CA, USA. January 1999.

## REFEREED ABSTRACTS

**2010** [A.2]  **Wagner, A. R.**, "Extended Abstract-Using Stereotypes to Understand One's Interactive Partner", Proceedings of the 9th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2010), Toronto, Canada. May 2010.

**2009** [A.1]  Jacobs, A. M., Fransen, B., McCurry, J. M., Heckel, F. W. P., **Wagner, A. R.**, Trafton, J. G., "A Preliminary System for Recognizing Boredom", HRI 2009 Late-Breaking Abstracts, San Diego, CA, USA. 2009.

## REFEREED DISCUSSION PANEL

**2012** [D.1]  Atkinson, D., Hoffman R. R., Lee, J. D., Rovira, E., Stokes, C., **Wagner, A. R.**, Hancock, P., "Trust in Computers and Robots: The Uses and Boundaries for the Analogy to Interpersonal Trust", Human Factors and Ergonomics Society, Oct. 2012.

## TECHNICAL REPORTS

**2014** [TR.4]  Doshi, J., **Wagner, A. R.,** and Kira, Z. "Deep Segments: Comparisons between Scenes and their Constituent Fragments using Deep Learning", Technical Report GT-CS-14-07, College of Computing, Georgia Institute of Technology, 2014.

**2012** [TR.3]  Emeli, V., **Wagner, A. R.**, and Kemp, C. C., "A Robotic System for Autonomous Medication and Water Delivery", Technical report GT-IC-12-01, College of Computing, Georgia Institute of Technology, 2012.

**2010** [TR.2]  **Wagner, A. R.**, and Arkin, R. C., "Acting Deceptively: Providing Robots with the Capacity for Deception", Technical report GIT-GVU-10-01, College of Computing, Georgia Institute of Technology, 2010.

**2007** [TR.1]  Ulam, P., Endo, Y., **Wagner, A. R.**, and Arkin, R. C., "Integrated Mission Specification and Task Allocation for Robot Teams - Part 2: Testing and Evaluation", Technical report GIT-GVU-07-02, College of Computing, Georgia Institute of Technology, 2007.

## UNREFEREED WORKS

**2014** [U.2]  **Wagner, A. R.,** Lawless, W., Burke, J., and Sofge D. "The Intersection of Robust Intelligence and Trust in Autonomous Systems", AAAI Spring Symposium Report, 2014.

[U.1]  **Wagner, A. R.,** "Conceptualizing the meaning of trust – for a robot", ISAT Workshop on Trusting Networks of Humans and Computers, 2014.

## DISSERTATION

**2009** [S.1]  Wagner, A. R., "**The Role of Trust and Relationships in Human-Robot Social Interaction**", Ph D. Dissertation, College of Computing, School of Interactive Computing, Georgia Institute of Technology, October 2009, Advisor: Ronald C. Arkin.

## RESEARCH FUNDING

### EXTERNAL

**2016**  **Developing human-machine systems that actively calibrate a user's trust** (AFOSR), $762,830, 4 yr. Investigators: Wagner, A. R. and Howard, A.

**2013**  **Near Surface Formation Control** (ONR), $240,000, 1 yr. Investigators: Weiss, L. and Wagner, A.R.

**Trust and Trustworthiness in Human-Robot Interaction: A formal Conceptualization** (AFOSR YIP), $120,000, 3 yr. Investigator: Wagner, A.R.

**2012**  **Adaptive Turn-taking Routines for HRI via Stereotype Models,** Office of Naval Research (ONR), $175,000, 3 yr. Investigators: Thomaz, A. and Wagner, A.R.

**2011**  **Object Recognition for Stereotype Learning in Human-Robot Interaction,** Naval Surface Warfare Center, Crane, $20,000/ 1 yr. Investigators. Wagner, A. R.

**2009**  **HRI Pioneers Workshop,** National Science Foundation, $24,950/ 1 yr. PI: Henrik Christensen (co-authored grant proposal)

### INTERNAL

**2015**  **Auditory Naming From Video Segments (ANVIS)** (IRAD—GTRI), $10,000, 1 yr. Investigators: Wagner, A. R, Kira, Z.

**Comprehensive Training Opportunity for Future Engineers** (GT-FIRE), $32,090, 2 yr. Investigators: Howard, A., Trumbower, R., Wagner, A. R., Wolf, S.

**Developing wearable systems that actively inform visually-impaired users about the world around them** (IRAD—IRIM), $20,000, 1 yr. Investigators: Wagner, A. R, Kira, Z.

**2014**  **Computational Social Robotics course**, Georgia Tech Teaching Fellowship Program, $15,027, 1 yr. Investigator: Wagner, A. R.

**Patient-Robot Interaction: Developing Robots that Address the Needs of Patients from Companionship to Conflict** (IRAD—IRIM), $16,100, 1 yr. Investigators: Wagner, A. R., Arkin, R., Essa, I., Howard, A., Kemp, C., Ueda, J.

**2013**  **A Cadre of Robots to Support Enhanced Teleoperation** (IRAD—GTRI), $10,000, 1 yr. Investigators: Balakirsky, S., Kira, Z., Pippen, C., and Wagner, A.R.

## TEACHING

**Academic Courses Taught**

| Semester | Course Title | Level | Role | Institution | Number of Students |
|---|---|---|---|---|---|
| Fall 2015 | Introduction to Robotics | Graduate | Guest Lecture | Georgia Institute of Technology College of Computing | 30 |
| Spring 2015 | Computational Social Robotics | Graduate | Instructor | Georgia Institute of Technology College of Computing | 3 |
| Spring 2014 | Autonomous Robotics | Graduate | Guest Lecture | Georgia Institute of Technology College of Computing | 20 |

| | | | | | |
|---|---|---|---|---|---|
| Fall 2012 | Autonomous Unmanned Systems | Continuing Education | Instructor | Naval Air Systems Command NAVAIR | 17 |
| Spring 2012 | Autonomous Robotics | Graduate | Guest Lecture | Georgia Institute of Technology College of Computing | 21 |
| Fall 2011 | AI and Autonomy | Graduate | Guest Lecture | Georgia Institute of Technology College of Computing | 18 |
| Spring 2011 | Robots and Society | Undergraduate | Guest Lecture | Georgia Institute of Technology College of Computing | 26 |
| Spring 2010 | Robots and Society | Undergraduate | Guest Lecture | Georgia Institute of Technology College of Computing | 21 |
| Fall 2009 | Management Information Systems | Undergraduate | Instructor | Dowling College | 16 |
| Fall 2008 | Autonomous Robotics | Graduate | Teaching Assistant | Korea University | 23 |
| Spring 2007 | Autonomous Robotics | Graduate | Guest Lecture | Georgia Institute of Technology, College of Computing | 23 |
| Spring 2007 | Robots and Society | Undergraduate | Guest Lecture | Georgia Institute of Technology, College of Computing | 25 |
| Spring 2001 | Data Structures with C++ | Undergraduate | Instructor | Boston University Metropolitan College | 34 |
| Fall 2000 | Data Structures with C++ | Undergraduate | Instructor | Boston University Metropolitan College | 31 |

**Curriculum Development**

Spring 2015   **Computational Social Robotics**, graduate level, Georgia Institute of Technology, College of Computing, Instructed and developed all course materials for a semester long course on social robotics.

Fall 2012   **Autonomous Unmanned Systems,** continuing education, NAVAIR, Patuxent River, MD. Instructed and developed course material and labs for a 20 student 2-day, 8 hour course devoted to introducing autonomous unmanned systems to ONR program managers.

Fall 2009   **Management Information Systems**, undergraduate level, Dowling College, GA. Instructed and developed course material for a 17 student, 3 hour course on introduction to information systems to adult learners.

## STUDENT ADVISING AND MENTORSHIP

**PhD students supervised**

2013-present   Paul Robinette (co-advised with Ayanna Howard), Robotics, Georgia Institute of Technology, Research: Social Robotics

2013-2015   Jigar Doshi (co-advised with Andrea Thomaz), Robotics, Georgia Institute of Technology, Research: Social Robotics. Currently at IBM.

2014   Jaeeun Shim, thesis committee member (advised by Ron Arkin), Robotics, Georgia Institute of Technology, Research: Social Robotics

**MS students supervised**

2015   Robert Allen, College of Computing, Georgia Institute of Technology, Research: Wearable

Perception Aids for the Blind

Wenchen Li, College of Computing, Georgia Institute of Technology, Research: Wearable Perception Aids for the Blind

2012      Azfar Aziz, Robotics, Georgia Institute of Technology, Research: Feature perception for Stereotype Creation

**Undergraduate students supervised**

2012      Stephen Camp, Computer Science, Georgia Institute of Technology, Research: Sensor Development

2012      Ahalya Prabhakar (co-advised with Charlie Kemp), Mechanical Engineering, California Institute of Technology (currently a graduate student at Northwestern University), Research: Healthcare Robotics

2007      Brittany Duncan, Computer Science, Georgia Institute of Technology (currently a graduate student at Texas A&M), Research: Individual project

## INVITED TALKS/PANELS

**External**

2015      Wagner, A.R., "Exploring Human-Robot Trust during Emergency Evacuation: Insights from the first 1600 subjects," The University of Maryland Seminar Series, College Park, MD, Nov. 19, 2015.

Wagner, A.R., "From Deep Learning to Episodic Memories: Connecting to Higher-level AI," The Naval Research Laboratory Seminar Series, Washington D.C., Sept. 17, 2015.

Wagner, A.R., "Exploring Human-robot Trust: Insights from the first 1000 subjects," The 2015 International Conference on Collaborative Technologies and Systems (CTS 2015), Atlanta, GA, June 2, 2015.

2014      Wagner, A.R., "Exploring Human-robot Trust: Insights from the first 1000 subjects," Air Force Research Lab, Dayton, OH, Nov 20, 2014.

Wagner, A.R., "Developing Robots that Learn to Trust," 2014 AFOSR Young Investigator Meeting, Arlington, VA, June 24, 2014.

Wagner, A.R., "Developing Robots that Learn to Trust," 2014 DARPA/ISAT Workshop on Trust, San Francisco, March 20, 2014.

2012      Wagner, A. R. "Emergent Social Phenomena and Social Action Selection", Florida Institute for Human and Machine Cognition, Oscala, FL, Jan 2012

2011      Wagner, A. R. "Building Representations of Common Ground" AAAI Fall Symposium Plenary, Arlington, VA, Nov 2011

Wagner, A. R. "Interdependence Framework for Social Action Selection", Naval Research Laboratory, ONR Science of Autonomy Workshop, Washington, DC, April 2011.

Wagner, A. R. "Interdependence Framework for Social Action Selection", DePaul University, Chicago, IL, February 2011.

2010      Wagner, A. R. "Representing Interaction in Human-Robot Systems", Naval Research Laboratory, ONR Science of Autonomy Workshop, Washington, DC, June 2010.

2009      Wagner, A. R. "Relationships and Trust in Human-Robot Interaction", Texas A&M, College Station, TX, March 2009.

2007      Wagner, A. R. "Interaction, Relationships, and Robots", Human-Robot Interaction Young Pioneers

Workshop, Washington DC, March 2007.

**Internal**

2012      Wagner, A. R. "Interdependence Framework for Social Action Selection", Shackelford Showcase, Atlanta, GA, April 2012.

Wagner, A. R. "Robo Stereotyping: Learning and Using Categorical Models of People", Conference on Us: Robots and Intelligent Machines, Atlanta, GA, March 2012.

2010      Wagner, A. R. "Creating Social Robots", Information and Communication Laboratory Brownbag, November 2010.

## PROFESSIONAL ACTIVITIES/SERVICE

Organizer    Organizer, IJCAI  Workshop Proposal Deep Learning for Artificial Intelligence (DLAI), 2016

Institute of Robotics and Intelligent Machines, Healthcare Cluster Lead, 2014-2015

Program Committee and Local Arrangements Chair, Third Annual Conference on Advances in Cognitive Systems, 2015

Organizer, IRIM Healthcare Robotics Research Workshop, 2014

Organizer, The Intersection of Robust Intelligence and Trust in Autonomous Systems, AAAI Spring Symposium Series, 2014

Program Committee, 11th International Symposium on Safety, Security, and Rescue Robotics (SSRR), 2013-2014.

Program Committee, 22nd International Symposium on Robot and Human Interactive Communication (Ro-Man), 2013

Program Committee, AAAI Conference on Artificial Intelligence, Robotics Track, 2013

Program Committee, Trust and Autonomous System, AAAI Spring Symposium Series, 2013

Organizer, Building Representations of Common Ground with Intelligent Agents, AAAI Fall Symposium Series, 2011

Chair, HRI Young Researcher's Workshop, 2009

Co-Chair, HRI Young Researcher's Workshop, 2008

Session Chair    25th International Conference on Intelligent Robots and Systems (IROS 2012). "Concept Learning", Villamoura, Portugal, 2012.

20th International Symposium on Robot and Human Interactive Communication (RO-MAN 2011). "New Directions" Atlanta, Georgia, 2011

Reviewer    RSS workshop proposal reviewer (2016)

Robotics and Autonomous Systems (2015)

AAAI Magazine (2015)

Book Proposal Review, Routledge Behavioral Science & Education

Research Monographs (2014)

Elsevier Robotics and Computer Integrated Manufacturing Journal (2014)

International Journal of Advanced Robotic Systems (2013)

International Journal of Social Robotics (2009-2015)

Information Sciences (2011)

Journal of Aerospace Computing, Information and Communication (2011-2012)

International Conference on Human Robot Interaction (2009, 2015)

Interaction Studies—Social Behavior and Communication in Biological and Artificial Systems (2009)

IEEE International Conference on Intelligent Robots and Systems (IROS) (2013)

IEEE International Conference on Robotics and Automation (ICRA) (2006, 2013, 2014)

| | |
|---|---|
| Proposal Review | National Science Foundation, 2012-2014<br>Air Force Office of Sponsored Research, 2012-2013, 2015<br>Oak Ridge Associated Universities, 2014 |
| Expert Interviews | Claro Partners, Business Strategy Consulting, Trust and Technology, 2014. |
| Campus Activities | Ph D. Admissions Chair, College of Computing Graduate student council, 2007<br>Member of Georgia Institute of Technology Robocup team, 2002-2004 |
| Local Volunteer Activities | Coached 5 different Lego Robotics teams from Kennesaw Charter Science and Math Academy, 2011-13.<br>Robotics demonstrations for visitors during National Robotics week, April 2012 and 2013<br>Led an ICL Brownbag titled, "Creating Social Robots", November 2010 |
| Prof. Member | IEEE, ACM, AAAI |

## HONORS AND AWARDS

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|---|---|
| **2013** | GTRI Innovative Research Award |
| **2013** | AFOSR Young Investigator Program |
| **2013** | GTRI Spot Award |
| **2012** | ATAS Outstanding Technical Achievement Award |
| **2012** | Internal Research and Development Project of the year—Finalist |
| **2010** | Time Magazine's Top 50 inventions of 2010 (#13) |
| **2006-2008** | Intel Opportunities Mentor Scholarship |
| **2002-2007** | Georgia Institute of Technology President's Fellowship |
| **2002-2006** | College of Computing Dean's Fellowship |
| **2007** | RO-MAN 2007 Best paper award |
| **2007** | Upsilon Pi Epsilon International Honor Society |

## SELECTED MEDIA COVERAGE

Over 70 articles were written about our work involving deceptive robots. The following is a sampling of those articles.

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|---|---|
| Nov. 1, 2010 | **Will Robots be asked to Fool the Enemy**?, National Defense, Eric Beidel, print |
| Sept. 25, 2010 | **Lying Robots**, The Wall Street Journal, Clayton M. McCleskey, print |
| Sept. 17, 2010 | **Deceptive robots show theory of mind**, New Scientist Magazine, Celeste Biever, print |
| Sept. 17, 2010 | **The Real Decepticons**, Science, vol 329, print |
| Sept. 16, 2010 | **Pentagon-Funded Researchers Create Deceptive Robots**, AOL News Media, Sharon **Weinberger**, online |
| Sept. 15, 2010 | **ABC News Radio** Jim Hickley, radio |
| Sept. 14, 2010 | **Fooled You! Robots Learn How To Deceive,** Discovery News, David Teeghman, online |
| Sept. 12, 2010 | **GA Tech Researchers Study Deception in Robots**, WABE Atlanta, Jim Burress, radio |
| Sept. 12, 2010 | **Everybody Lies–Even Robots**, ACED Magazine, Jenna Benoussan, print |

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|---|---|
| Sept. 10, 2010 | **Researchers Report Teaching Robots to Lie,** CBS News, online |
| Sept. 10, 2010 | **Game theory teaches robots how to deceive,** Electronics Weekly , Steve Bush, online |
| Sept. 10, 2010 | **Sneaky Robots**, CBS 42, Kalee Dionne, online |
| Sept. 10, 2010 | **Team teaches robots to deceive**, TG Dailey, Emma Woollacott, online |
| Sept. 10, 2010 | **Robots capable of 'deceiving humans' built by crazed boffins**, The Register, Lewis Page, online |
| Sept. 9, 2010 | **Robots taught to deceive**, Gizmag , Ben Coxworth, online |
| Sept. 9, 2010 | **Military Research Teaches Robots How to Deceive Each Other**, Popular Science, Clay Dillow, online. |

## REFERENCES

Upon Request