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Educational Background

Ph.D.	2006	Massachusetts Institute of Technology	<i>Media Arts and Sciences</i>
S.M.	2002	Massachusetts Institute of Technology	<i>Media Arts and Sciences</i>
B.S.	1999	University of Texas at Austin	<i>Electrical and Computer Engineering</i>

Professional Employment History

Assistant Professor	School of Interactive Computing Georgia Institute of Technology	<i>2007-present</i>
Postdoctoral Associate	Media Laboratory Massachusetts Institute of Technology	<i>2006-07</i>
Research Assistant	Media Laboratory Massachusetts Institute of Technology	<i>2000-06</i>
Research Summer Intern	Microsoft Research	<i>2003</i>

Current Fields of Interest

Areas: Robotics, Human-Robot Interaction, Artificial Intelligence, Machine Learning, Autonomous Agents, Interactive Game AI.

Socially Intelligent Machines. My work focuses on machines that learn new tasks and goals from ordinary people in everyday human environments. This research works from the assumption that machines meant to learn from people can take better advantage of the ways in which people naturally approach teaching. I want to understand and computationally model specific mechanisms of human social learning in order to build machines that participate in social learning interactions. This work has interconnected goals from Artificial Intelligence and Human-Computer/Robot Interaction: improving the performance of a machine's learning behavior through attention to human interaction and improving the experience of the human teacher by designing interactive learning algorithms based on how people teach. This work tackles many great research questions spanning Machine Learning, Robotics, Human-Computer/Robot Interaction, and Cognitive Science.

I. Teaching

A. Courses Taught

Term	Course	Comments
Spring 2011	CS 8803: Human-Robot Interaction	
Fall 2010	CS 3600: Introduction to Intelligent Systems	
Fall 2010	ME/CS/AE/BMED/ECE-7785: Introduction to Robotics Research	
Spring 2010	CS 8803: Human-Robot Interaction	
Fall 2008	ME/CS/AE/BMED/ECE-7785: Introduction to Robotics Research	
Spring 2009	CS 8803: Human-Robot Interaction	
Fall 2008	CS 3600: Introduction to Intelligent Systems	
Spring 2008	CS 8803: Human-Robot Interaction	

B. Curriculum Development

Developed CS 8803 Human-Robot Interaction: This graduate course introduces students to the emerging field of Human-Robot Interaction (HRI). This multidisciplinary research area draws from: Robotics, AI, Human-Computer Interaction, and Cognitive Psychology. The main goal of HRI is to enable robots to successfully interact with humans. This is now a foundation class for the Robotics PhD Interaction Core Area, and is offered once a year. It will have it's own course number by Fall 2011.

Robotics PhD program, Interaction Core Area: Working with other faculty, I put together a proposal for an amendment to the Robotics PhD Program. This proposal was presented and accepted at a robotics faculty meeting in Spring 2009. Starting in the Fall of 2009, the Robotics PhD program will now offer students the option of selecting "(Human) Interaction" as one of their three core areas. This makes Georgia Tech the first PhD program to allow students to graduate with a degree specializing in Human-Robot Interaction.

C. Individual Student Guidance

Ph.D. Students Supervised

Karl Jiang (CoC)

GRA Fall 2010 to present
Human-robot turn-taking interactions

Jaeun Shim (ECE)

GRA Fall 2010 to present
Human-robot turn-taking interactions

Crystal Chao (CoC)

GRA Fall 2008 to present
Turn-taking interactions, Learning by demonstration
Publications: *C.1.1, C.2.1, D.2.2, D.3.1*

Michael Gielniak (ECE)

GRA Summer 2008 to present
Autogeneration of believable motion for social robots
Publications: *D.3.3, D.3.4, D.3.5*

Maya Cakmak (CoC)

GRA Summer 2008 to present

Developmental robotics, Learning by demonstration

Publications: *C.1.1, C.1.4, C.1.5, C.1.6, C.2.1, C.2.3, D.2.1, D.2.2, D.3.1*

Jeff Kiser (CoC)

GRA Fall 2009 to Spring 2010

Human-robot turn-taking interactions

Ph.D. Students Co-Advised

Jinhan Lee (CoC)

GRA Fall 2009 to present, co-advised with Dr. Aaron Bobick

Computer vision for Human-Robot Interaction

Peng Zang (CoC)

GRA Fall 2008 to present, co-advised with Dr. Charles Isbell

Interactive Machine Learning

Publications: *C.1.2, C.2.2*

Luis Carlos Cobo Rus (ECE)

GRA Fall 2010 to present, co-advised with Dr. Charles Isbell

Interactive Machine Learning

Publications:

Jon Scholz (CoC)

GRA Fall 2010 to present, co-advised with Dr. Charles Isbell

Interactive Machine Learning

Publications:

Kaushik Submaranian (CoC)

GRA Fall 2010 to present, co-advised with Dr. Charles Isbell

Interactive Machine Learning

Publications:

Arya Irani (CoC)

GRA Fall 2008 to Summer 2010, co-advised with Dr. Charles Isbell

Interactive Machine Learning

Publications: *C.1.2*

Peng Zhou (CoC)

GRA Fall 2008 to Spring 2009, co-advised with Dr. Charles Isbell

Interactive Machine Learning

Publications: *C.1.2*

Master's Students Supervised

Jae Wook Yoo (CoC)

GRA Fall 2010 to present

Learning by Demonstratoin

Chien-Ming Lee (CoC)

GRA Fall 2009 to Summer 2010, now pursuing PhD at U. Wisconsin

Human-Robot Interaction toolkit

Nick DePalma (CoC)
GRA Spring 2009 to Summer 2010, now pursuing PhD at MIT
Learning by demonstration
Publications: C.1.4, C.1.5, D.2.1

Jin Joo Lee (ECE)
GRA Spring/Summer 2009, now pursuing PhD at MIT
Learning by demonstration
Publications: D.3.2

Master's Special Problems Students

Karl Jiang (CoC)
Fall 2009
Human-Robot Interaction toolkit

Sung-Hyun Park (CoC)
Fall 2009
Human-Robot Interaction toolkit

Abhishek Saxena (CoC)
Spring 2008
Activity recognition for tabletop learning by demonstration scenarios

Anand TM (CoC)
Fall 2007, Spring 2008
Social attention systems for autonomous robots

Chetna Kaur (CoC)
Fall 2007
Wireless control for the Bioloid robot

Undergraduates

Robert Loftin (CoC)
Fall 2008 to present
Computer vision for Human-Robot Interaction

Amanda O'Neal (CoC)
Fall 2009
Building a motion graph for an animated robot

Abhishek Shrof (CoC)
Fall 2009
Web interface for robot training

Jonathan Quinn (CoC)
Fall 2009
RIM Entryway demo

Jonathan Lee (CoC)
Fall 2008 to Spring 2009
Motion planning and control for Human-Robot Interaction

Gaurav Mathur (CoC)
Spring 2009
Software development for behavior based robotics

Brian Smith (undeclared major)
Spring 2008 - Spring 2009
Support infrastructure for developmental learning

Jin Yao (CoC)
Spring 2008
Support infrastructure for a robotic musician

D. Other Academic and Teaching Activities

D.1. Co-Advisor for Robotics PhD Research 8750/8751

1. **Jeff Kiser**, Human-robot object handoffs, co-advisor: Charles Kemp.
Fall 2009
2. **Crystal Chao**, Learning by Demonstration, co-advisor: Henrik Christensen.
Spring 2009
3. **Travis Deyle**, RFID to Inform Manipulation to Perform Object Grasping, co-advisor: Charles Kemp.
Fall 2008
4. **Maya Cakmak**, Developmental Learning for Robots, co-advisor: Rosa Arriaga.
Spring 2008, Fall 2008

D.2. Member of Ph.D. Examining Committees

1. Alan Wagner, College of Computing, Georgia Institute of Technology, graduated Fall 2009.
Thesis Title: "The Role of Trust and Relationships in Human-Robot Social Interaction."
Principal Advisor: Dr. Ron Arkin
2. Young Sang Choi, School of Biomedical Engineering, Georgia Institute of Technology, graduated Spring 2009.
Thesis Title: "A Study of Human-Robot Interaction with an Assistive Robot to Help People with Severe Motor Impairments."
Principal Advisor: Dr. Charles Kemp
3. Ja-Young Sung, College of Computing, Georgia Institute of Technology, proposed in Summer 2009.
Thesis Title: TBD
Principal Advisor: Dr. Rebecca Grinter

D.3. Ph.D. Qualifying Exams

1. Peng Zouh, College of Computing, Georgia Tech., Fall 2009.
Principal Advisor: Dr. Charles Isbell.
2. Arya Irani, College of Computing, Georgia Tech., Fall 2008.
Principal Advisor: Dr. Charles Isbell.
3. Charles Phippen, College of Computing, Georgia Tech., Fall 2008.
Principal Advisor: Dr. Tucker Baulch.
4. Ja-Young Sung, College of Computing, Georgia Tech., Spring 2008.
Principal Advisor: Dr. Beki Grinter.

II. Research and Creative Scholarship

A. Theses

Ph.D. Thesis

Title: *Socially Guided Machine Learning*
Date Completed: *May 2006*
Advisor: *Cynthia Breazeal*
University: *Massachusetts Institute of Technology*

S.M. Thesis

Title: *Understanding Implicit Social Context in Electronic Communication*
Date Completed: *September 2002*
Advisor: *Ted Selker*
University: *Massachusetts Institute of Technology*

B. Published Journal Papers

- [1] M. Cakmak, N. DePalma, R. Arriaga, and A. L. Thomaz. Exploiting social partners in robot learning. *Autonomous Robots*, 29, 2010.
- [2] M. Cakmak, C. Chao, and A. L. Thomaz. Designing interactions for robot active learners. *IEEE Transactions on Autonomous Mental Development*, 2:108–118, 2010.
- [3] A. L. Thomaz and C. Breazeal. Teachable robots: Understanding human teaching behavior to build more effective robot learners. *Artificial Intelligence Journal*, 172:716–737, 2008.
- [4] A. L. Thomaz and C. Breazeal. Experiments in socially guided exploration: Lessons learned in building robots that learn with and without human teachers. *Connection Science, Special Issue on Social Learning in Embodied Agents*, 2008.
- [5] C. Breazeal, M. Berlin, A. Brooks, J. Gray, and A. L. Thomaz. Using perspective taking to learn from ambiguous demonstrations. *Journal of Robotics and Autonomous Systems Special Issue on Robot Programming by Demonstration*, 2005.
- [6] C. Breazeal, A. Brooks, J. Gray, G. Hoffman, J. Lieberman, H. Lee, A. Lockerd (Thomaz), and D. Mulanda. Tutelage and collaboration for humanoid robots. *International Journal of Humanoid Robotics*, 1(2), 2004.
- [7] A. Brooks, J. Gray, G. Hoffman, A. Lockerd (Thomaz), H. Lee, and C. Breazeal. Robot’s play: interactive games with sociable machines. *Computers in Entertainment.*, 2(3):1–18, July 2004.

C. Conference Presentations

C.1. Conference Presentations with Proceedings

- [1] M. Gielniak, K. Liu, and A. L. Thomaz. Task aware variance for robot motion. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2011)*, 2011.
- [2] T. Chen, C.H. King, A. L. Thomaz, and C. Kemp. Touched by a robot: An investigation of subjective responses to robot-initiated contact. In *Proceedings of the International Conference on Human-Robot Interaction (HRI 2011)*, 2011.
- [3] M. Gielniak and A. L. Thomaz. Spatiotemporal correspondence as a metric for human-like robot motion. In *Proceedings of the International Conference on Human-Robot Interaction (HRI 2011)*, 2011.

- [4] J. Lee, J. Kiser, A. Bobick, and A. L. Thomaz. Vision-based contingency detection. In *Proceedings of the International Conference on Human-Robot Interaction (HRI 2010)*, 2011.
- [5] M. Cakmak and A. L. Thomaz. Optimality of human teachers for robot learners. In *Proceedings of the International Conference on Development and Learning (ICDL 2010)*, 2010.
- [6] P. Zang, R. Tian, A. L. Thomaz, and C. Isbell. Batch versus interactive learning by demonstration. In *Proceedings of the International Conference on Development and Learning (ICDL 2010)*, 2010.
- [7] C. Chao, M. Cakmak, and A. L. Thomaz. Transparent active learning for robots. In *Proceedings of the International Conference on Human-Robot Interaction (HRI 2010)*; *accept rate: 21%*, 2010.
- [8] P. Zang, A. Irani, P. Zhou C. Isbell, and A. L. Thomaz. Combining function approximation, human teachers, and training regimens for real-world rl. In *Proceedings of the International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*; *accept rate: 24%*, 2010.
- [9] M. Gielniak, K. Liu, and A. L. Thomaz. Stylized motion generalization through adaptation of velocity profiles. In *Proceedings of the IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2010)*, 2010.
- [10] M. Gielniak, K. Liu, and A. L. Thomaz. Secondary action in robot motion. In *Proceedings of the IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2010)*, 2010.
- [11] Kyu Hwa Lee, Jinhan Lee, A. L. Thomaz, and A. Bobick. Effective robot task learning by focusing on task-relevant objects. In *Proceedings of the 2009 IEEE International Conference on Intelligent Robots and Systems (IROS09)*; *accept rate: 54%*, 2009.
- [12] A. L. Thomaz, M. Cakmak, N. DePalma, and R. Arriaga. Effects of social exploration mechanisms on robot learning. In *Proceedings of the 18th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN09)*; *accept rate: 51%*, 2009.
- [13] M. Cakmak, N. DePalma, R. Arriaga, and A. L. Thomaz. Computational benefits of social learning mechanisms: Stimulus enhancement and emulation. In *Proceedings of the International Conference on Developmental Learning (ICDL)*, 2009.
- [14] A. L. Thomaz and M. Cakmak. Learning about objects with human teachers. In *Proceedings of the International Conference on Human-Robot Interaction (HRI)*; *accept rate: 19%*, 2009.
- [15] C. Breazeal and A. L. Thomaz. Learning from human teachers with socially guided exploration. In *Proceedings of the IEEE International Conference on Robotics and Automation*; *accept rate: 43%*, 2008.
- [16] A. L. Thomaz and C. Breazeal. Robot learning via socially guided exploration. In *Proceedings of the 5th International Conference on Developmental Learning (ICDL)*, 2007.
- [17] A. L. Thomaz, G. Hoffman, and C. Breazeal. Reinforcement learning with human teachers: Understanding how people want to teach robots. In *Proceedings of the 15th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN06)*, 2006.
- [18] A. L. Thomaz and C. Breazeal. Teachable characters: User studies, design principles, and learning performance. In *Proceedings of the 6th International Conference on Intelligent Virtual Agents (IVA06)*; *accept rate: 31%*, 2006.
- [19] A. L. Thomaz and C. Breazeal. Reinforcement learning with human teachers: Evidence of feedback and guidance with implications for learning performance. In *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI)*; *accept rate: 21%*, 2006.

- [20] M. Berlin, J. Gray, A. L. Thomaz, and C. Breazeal. Perspective taking: An organizing principle for learning in human-robot interaction. In *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI)*; accept rate: 21%, 2006.
- [21] A. L. Thomaz and C. Breazeal. Transparency and socially guided machine learning. In *Proceedings of the 5th International Conference on Developmental Learning (ICDL)*, 2006.
- [22] A. L. Thomaz, G. Hoffman, and C. Breazeal. Experiments in socially guided machine learning: Understanding how humans teach. In *Proceedings of the 1st Annual Conference on Human-Robot Interaction (HRI)*, 2006.
- [23] C. Breazeal, C. Kidd, A. L. Thomaz, G. Hoffman, and M. Berlin. Effects of nonverbal communication on efficiency and robustness in human-robot teamwork. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems*; accept rate: 55%, 2005.
- [24] A. L. Thomaz, M. Berlin, and C. Breazeal. An embodied computational model of social referencing. In *IEEE International Workshop on Human Robot Interaction (RO-MAN)*, 2005.
- [25] A. Lockerd-Thomaz and C. Breazeal. Tutelage and socially guided robot learning. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*; accept rate: 55%, 2004.
- [26] C. Breazeal, G. Hoffman, and A. Lockerd (Thomaz). Teaching and working with robots as collaboration. In *Proceedings of the AAMAS*; accept rate: 25%, 2004.
- [27] C. Breazeal, A. Brooks, D. Chilongo, J. Gray, G. Hoffman, C. Kidd, H. Lee, J. Lieberman, and A. Lockerd (Thomaz). Working collaboratively with humanoid robots. In *Proceedings of IEEE-RAS/RSJ International Conference on Humanoid Robots (Humanoids)*, Santa Monica, CA, 2004.
- [28] W. Bluethmann, R. Ambrose, M. Diftler, E. Huber, A. Fagg, M. Rosenstein, R. Platt, R. Gruppen, C. Breazeal, A. Brooks, A. Lockerd (Thomaz), A. Peters, O. C. Jenkins, M. Mataric, and M. Bugajska. Building an autonomous humanoid tool user. In *Proceedings of IEEE-RAS/RSJ International Conference on Humanoid Robots (Humanoids)*, Santa Monica, CA, 2004.
- [29] A. Brooks, J. Gray, G. Hoffman, A. Lockerd (Thomaz), H. Lee, and C. Breazeal. Robot's play: interactive games with sociable machines. In *Proceedings of the International Conference on Advances in Computer Entertainment (ACE)*, June 2004.
- [30] A. Lockerd (Thomaz) and T. Selker. Driftcatcher: The implicit social context of email. In *Proceedings of Ninth IFIP TC 13 International Conference on Human-Computer Interaction (INTERACT)*; accept rate: 34%, 2003.
- [31] A. Lockerd (Thomaz), H. Pham, T. Sharon, and T. Selker. Mr.web: An automated interactive webmaster. In *Proceedings of ACM SIGCHI Conference on Computer Human Interaction (CHI)*; accept rate: 16%, 2003.
- [32] A. Lockerd (Thomaz) and F. Mueller. Lafcam: Leveraging affective feedback camcorder. In *Proceedings of ACM SIGCHI Conference on Computer Human Interaction (CHI)*; accept rate: 15%, 2002.
- [33] T. Selker, A. Lockerd (Thomaz), J. Martinez, and W. Burleson. Eye-are, a glasses-mounted eye motion detection interface. In *Proceedings of ACM SIGCHI Conference on Computer Human Interaction (CHI)*; accept rate: 20%, 2001.
- [34] F. Mueller and A. Lockerd (Thomaz). Cheese: Tracking mouse movement activity on websites, a tool for user modeling. In *Proceedings of ACM SIGCHI Conference on Computer Human Interaction (CHI)*; accept rate: 20%, 2001.

C.2. Invited Workshop and Conference Presentations

- [1] C. Chao, M. Cakmak, and A. L. Thomaz. Interactive task learning with discrete and continuous features. In *Robot Workshop at American Association of Artificial Intelligence (AAAI)*, 2009.
- [2] P. Zang, C. Isbell, and A. L. Thomaz. Exploiting training regimens to improve learning. In *Proceedings of the Multidisciplinary Symposium on Reinforcement Learning*, 2009.
- [3] M. Cakmak and A. L. Thomaz. Learning about objects with human teachers. In *Robot Workshop at American Association of Artificial Intelligence (AAAI)*, 2008.
- [4] A. L. Thomaz and C. Breazeal. Socially guided machine learning: Designing an algorithm to learn from real-time human interaction. In *NIPS 2005 workshop on Robot Learning in Unstructured Environments*, 2005.
- [5] A. L. Thomaz, G. Hoffman, and C. Breazeal. Real-time interactive reinforcement learning for robots. In *AAAI 2005 Workshop on Human Comprehensible Machine Learning*, 2005.
- [6] A. Lockerd (Thomaz) and E. Arroyo. Personal data for personal use: Case studies in user modeling for context-aware computing. In *AAAI Fall Symposium on Etiquette for Human Computer Interaction Working Notes*, 2002.

D. Other

D.1. Invited Talks

- [1] International Symposium on Robotics Research (ISRR). *Social Learning Mechanisms for Robots*, August 2009.
- [2] Kavli Frontiers Symposium of the National Academy of Sciences. *Human-Robot Interaction*, 2008.
- [3] Robotics and Intelligent Machines Seminar Georgia Tech. *Socially Guided Machine Learning*, 2007.
- [4] Cognitive Science Department Indiana University. *Socially Guided Machine Learning*, 2007.
- [5] Robotics Institute Seminar CMU. *Socially Guided Machine Learning*, 2007.
- [6] Artificial Intelligence Research Group Harvard University. *Socially Guided Machine Learning*, 2006.
- [7] Computer Science Seminar Brown University. *Socially Guided Machine Learning*, 2006.

D.2. Journal Papers Submitted and In Preparation

D.3. Conference Papers Submitted and In Preparation

D.4. Research Blog

Since 2007 I have been writing a blog: “So, Where’s My Robot” (www.sowheresmyrobot.com). I describe this as a research blog about Socially Guided Machine Learning, thoughts on everything that stands between today’s technology and everyday robots for you and me.

I started this as a research experiment. The blogging medium is an exciting one for academic research communities, and I believe that we will continue to see more people using this medium in addition to the traditional conference and journal channels. It has been a useful way for me to vet ideas that are developed and not so developed, comment and critique related research, and highlight news and industry that is related to Social Machine Learning.

The blog has on the order of 100 posts, around 125 followers (as measured by www.feedburner.com), and gets a few hits a day (as measured by www.google.com/analytics).

E. Research Proposals and Grants

1. Approved and Funded (Principle Investigator)

E.1.1 Honda Initiation Grant

Sponsor: Honda Research
Investigator(s): Andrea L. Thomaz (PI)
Amount: \$50,000 over 1 year
Submitted: Dec, 2009
Starting: July, 2010

E.1.2 CAREER: Socially Guided Machine Learning

Sponsor: NSF, IIS program
Investigator(s): Andrea L. Thomaz (PI)
Amount: \$550,000 over 5 years
Submitted: July, 2009
Starting: March, 2010

E.1.3 Turn-taking: A fundamental skill for Human-Robot Interaction

Sponsor: Office of Naval Research, Young Investigator Program
Investigator(s): Andrea L. Thomaz (PI)
Amount: \$350,000 over 3 years
Submitted: January, 2008
Starting: June, 2008

E.1.4 An HRI Approach in Robot Learning by Demonstration

Sponsor: NSF, IIS program
Investigator(s): Andrea L. Thomaz (PI)
Amount: \$350,000 over 3 years
Submitted: November, 2007
Starting: July, 2008

E.1.5 Interaction and Learning for Autonomous Assembly Robots

Sponsor: General Motors
Investigator(s): Andrea L. Thomaz (PI), Henrik Christensen
Amount: \$220,000 over 2 years
Submitted: September, 2008
Starting: October, 2008

E.1.6 Social Cues for Human-Robot Musical Collaboration

Sponsor: GUVU Innovation Grant
Investigator(s): Andrea L. Thomaz (PI), Gil
Amount: 12 months GRA support
Submitted: November, 2007
Starting: January, 2008

1. Approved and Funded (Co-PI)

E.1.1 Webgames to Advance Interactive Learning Agents

Sponsor: NSF, IIS program
Investigator(s): Andrea L. Thomaz, Charles Isbell (PI)
Amount: \$450,000 over 3 years
Submitted: November, 2007
Starting: July, 2008

E.1.2 **Cognitive Consumer Robotics**

Sponsor: KORUS

Investigator(s): Andrea L. Thomaz, Henrik Christensen (PI), Rebecca Ginter

Amount: *\$180,000 per year for 5 years*

Submitted: *Fall, 2008*

Starting: *Summer, 2009*

2. Pending

E.2.1 **II-NEW: Task Based Manipulation for Service Robot Application**

Sponsor: NSF, IIS program

Investigator(s): Henrik Christensen (PI), Michael Stilman, Andrea L. Thomaz

Amount: *\$338,000*

Submitted: *August 2009*

E.2.2 **Socially Guided Machine Learning for Humanoid Robots**

Sponsor: Honda Initiation Grant

Investigator(s): Andrea L. Thomaz

Amount: *\$50,000*

Submitted: *pre-proposal submitted December 2009*

E.2.3 **IGERT: Human-Robot Interaction**

Sponsor: NSF

Investigator(s): Ayanna Howard (PI), Henrik Christensen, Frank Dellart, Charlie Kemp, Andrea L. Thomaz

Amount: *undecided*

Submitted: *in preparation for submission in Spring 2010*

3. Not Funded

E.3.1 **Social Robots as Motivational Tools in Autism Therapy**

Sponsor: Microsoft Research

Investigator(s): Henrik Christensen (PI), Andrea L. Thomaz, Agata Rozga

Amount: *\$287,000*

Submitted: *Spring 2009*

E.3.2 **Computational Models of Intentional Action**

Sponsor: Honda Initiation Grant

Investigator(s): Andrea L. Thomaz

Amount: *\$50,000*

Submitted: *pre-proposal submitted December 2008*

E.3.3 **HCC:RI: Large: Computational Gaze for Man and Machine**

Sponsor: NSF, IIS program

Investigator(s): Frank Dellaert (PI), Michael Stilman, Andrea L. Thomaz, Charles Kemp, Bruce Walker

Amount: *\$2,970,000*

Submitted: *November 2008*

E.3.4 **IGERT Pre-proposal: Robots @ Home**

Sponsor: NSF

Investigator(s): Henrik Christensen (PI), Andrea L. Thomaz, Charles Kemp, Ayanna Howard, Harvey Lipkin

Amount: *\$2*

Submitted: *April 2008*

E.3.5 DHB: Human-Robot Rescue Teams: Computational Models of Dynamic Joint Activity

Sponsor: NSF, BCS Program

Investigator(s): Andrea L. Thomaz (PI), Mark Riedl, Tucker Balch, Irfan Essa

Amount: \$734,580

Submitted: *February 2008*

E.3.6 Interfaces for Everyday Interaction with a Collection of Robots

Sponsor: Microsoft Research

Investigator(s): Henrik Christensen (PI), Rebecca Grinter, Andrea L. Thomaz

Amount: \$70,000

Submitted: *December 2007*

F. Research Honors and Awards

- **Best Student Poster Award**, Andrea L. Thomaz, Guy Hoffman, and Cynthia Breazeal (2006). "Experiments in Socially Guided Machine Learning: Understanding How Humans Teach." Proceedings of the First International Conference on Human-Robot Interaction (HRI-2006).

III. Service

A. Professional Activities

A.1. Journal Reviewing Activities

- **Reviewer**, Autonomous Robotics, 2009, 2010, 2011
- **Reviewer**, IEEE Transactions on Autonomous Mental Development, 2009.
- **Reviewer**, T-RO, special issue on “Human-Robot Interaction”, 2007.
- **Reviewer**, Interaction Studies, issue on “Human-Robot Interactive Communication”, 2006.

A.2. Conference Committee Activities

- **Chair**, AAAI 2011 Robotics Program and Exhibit.
- **Area Chair**, RSS 2011.
- **Associate Editor**, ICRA 2011.
- **Program Committee**, Ro-Man 2011.
- **Co-Chair**, AAAI 2010 Robotics Program and Exhibit.
- **Co-Chair**, HRI 2010 Late Breaking Reports.
- **Organizing Committee**, Workshop on Agents that Learn by Interacting with Human Teachers AAMAS 2010.
- **Chair**, AAAI 2009 Spring Symposium on Agents that Learn from Human Teachers.
- **Chair**, IJCAI 2009 Robotics Program, Learning by Demonstration Exhibit.
- **Chair**, AAAI 2009 Spring Symposium on Agents that Learn from Human Teachers.
- **Program Committee**, Robotics Science and Systems (RSS) 2009.
- **Organizing Committee**, RSS 2008 Interactive Robot Learning Workshop.
- **Session Chair**, IEEE International Conference Robotics and Automation (ICRA 2008).
- **Program Committee**, Physically Grounded AI, AAAI 2008
- **Area chair for Social Interfaces**, International Conference on Multi-modal Interfaces (ICMI 2007)
- **Organizing Committee**, HRI 2007 Young Researchers Workshop.
- **Reviewer**, ICRA 2010, Conference on Human-Computer Interaction (CHI 2010), Conference on Human-Robot Interaction (HRI 2010), CHI 2009, HRI 2009, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2008), International Conference on Development and Learning (ICDL 2008), IEEE Conference on Human-Robot Interactive Communication (RO-MAN 2008), HRI 2008, CHI 2007, HRI 2007, CSCW 2006, IJCNN 2006, CogSci 2005, ICDL 2005

B. On-Campus Georgia Tech Committees

1. Chair, School of Interactive Computing PhD Recruiting Committee, 2010, 2011.
2. Chair, School of Interactive Computing, School Chair Advisory Committee, 2008.
3. Member, College of Computing PhD Recruiting Committee, 2008.

IV. National and International Professional Recognition

A. Invited Conferences

- Invited Chair of Human-Robot Interaction session at the National Academy of Sciences, 11th Annual Chinese-American Kavli Frontiers of Science symposium, October 2008, Irvine, CA.
- Invited participant in the National Academy of Sciences, 10th Annual Chinese-American Kavli Frontiers of Science symposium, October 2007, Beijing, China.

B. Articles and Publications by the Popular Media

- “Students meet your new teach, Mr. Robot” Ben Carey and Jon Markoff. *New York Times*, July 10, 2010.

C. Honors and Awards

- MIT Technology Review, Top 35 Under 35 (TR35) 2009.
- Subaru, Professor of the Game, Fall 2010.

V. Personal Data



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