

Amy Ogan

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Human-Computer Interaction Institute
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Education

Ph.D. in Human-Computer Interaction, expected Spring 2010
Pittsburgh Science of Learning Center; PIER Fellowship
Human-Computer Interaction Institute
Carnegie Mellon University, Pittsburgh, PA, USA
Committee: Vincent Aleven (co-chair), Christopher Jones (co-chair),
Sara Kiesler, Randall Hill

Master of Science in Human-Computer Interaction, 2008
Carnegie Mellon University, Pittsburgh, PA, USA

Bachelor of Science in Computer Science, University Honors, 2003
Additional majors: Spanish, Human-Computer Interaction
Carnegie Mellon University, Pittsburgh, PA, USA

Research Interests

Human-computer interaction, virtual humans, educational games, cultural learning, social motivation, ill-defined domains, intelligent tutoring systems, cognitive modeling, learning sciences

Publications

Refereed Journal & Full Conference Papers

Aleven, V., Myers, E., Easterday, M., & **Ogan, A.** (submitted). Toward a framework for the analysis and design of educational games. Submitted to *Digital 2010*.

Ogan, A., Aleven, V., Kim, J., & Jones, C. (submitted). Learning intercultural negotiation from virtual humans: The effect of social goals. Submitted to *SIGCHI Conference on Human Factors in Computing Systems*.

Ogan, A., Aleven, V., Jones, C. (in press) Pause, predict, and ponder: using narrative video to improve cultural learning. *International Journal of Artificial Intelligence in Education*.

Ogan, A., Aleven, V., and Jones, C. (2008). Pause, predict, and ponder: use of narrative videos to improve cultural discussion and learning. In *Proceeding of the Twenty-Sixth Annual SIGCHI Conference on Human Factors in Computing Systems* (Florence, Italy, April 5-10, 2008). CHI '08. ACM, New York, NY, pp. 155-162.

Ogan, A., Jones, C., Aleven, V. (2005) Improving Intercultural Competence by Predicting in French Film. In Richards, G. (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2005* (Vancouver, BC, October 24-28, 2005). Chesapeake, VA: AACE, pp. 3101-3106.

Aleven, V., **Ogan, A.**, Popescu, O., Torrey, C., & Koedinger, K. (2004). Evaluating the Effectiveness of a Tutorial Dialogue System for Self-Explanation. In J. C. Lester, R. M. Vicario, & F. Paraguaçu (Eds.), *Proceedings of Seventh International Conference on Intelligent Tutoring Systems, ITS 2004* (pp. 443-454). Berlin: Springer Verlag.

Aleven V., Popescu, O., **Ogan, A.** & Koedinger, K. R. (2003). A Formative Classroom Evaluation of a Tutorial Dialogue System that Supports Self-Explanation. In V. Aleven, U. Hoppe, J. Kay, R. Mizoguchi, H. Pain, F. Verdejo, & K. Yacef (Eds.), *Supplemental Proceedings of the 11th International Conference on Artificial Intelligence in Education, AIED2003*, Vol. VI (pp. 345-355). School of Information Technologies, University of Sydney.

Book Chapters

Ogan, A., & Lane, H. C. (in press). Virtual learning environments for culture and intercultural competence. In E. Blanchard & D. Allard (Eds.), *Handbook of Research on Culturally-Aware Information Technology: Perspectives and Models*, IGI Global, Hershey, PA.

Refereed Abstracts, Short and Workshop Papers

Ogan, A., Kim, J., Aleven, V. and Jones, C. (2009). Explicit Social Goals and Learning in a Game for Cross-cultural Negotiation, In *Proceedings of the Workshop on Intelligent Educational Games, 14th International Conference on Artificial Intelligence in Education*. Brighton, UK, July 2009.

Ogan, A., Aleven, V., and Jones, C. (2009). Investigating the Effects of Social Goals in a Negotiation Game with Virtual Humans. In *Proceedings of the 14th International Conference on Artificial Intelligence in Education*. Brighton, UK, July 2009. pp. 777-778.

Lane, H. C., & **Ogan, A.** (2009). Virtual Environments for Cultural Learning. In *Proceedings of the Workshop on Culturally-Aware Tutoring Systems, 14th International Conference on Artificial Intelligence in Education*. Brighton, UK, July 2009.

Ogan, A., Aleven, V., Kim, J., and Jones, C. (2009). Antecedents of Attributions in an Educational Game for Social Learning: Who's to Blame? In A. A. Ozok and P. Zaphiris (Eds.), *Proceedings of the 3rd International Conference on Online Communities and Social Computing: Held As Part of HCI International 2009* (San Diego, CA, July 19 - 24, 2009). Lecture Notes in Computer Science, vol. 5621. Springer-Verlag, Berlin, Heidelberg, 593-602.

Ogan, A., Walker, E., Aleven, V., & Jones, C. (2008). Toward Supporting Collaborative Discussion in an Ill-Defined Domain. In E. Aimeur, & B. Woolf (Eds.) *Proceedings of the 9th International Conference on Intelligent Tutoring Systems (ITS 2008)*, (pp. 825-827). Berlin: Springer Verlag.

Walker, E., **Ogan, A.**, Aleven, V., and Jones, C. (2008). Two Approaches for Providing Adaptive Support for Discussion in an Ill-Defined Domain. In V. Aleven, K. Ashley, C. Lynch, & N. Pinkwart (Eds.), *Proceedings of the Workshop on Intelligent Tutoring Systems for Ill-Defined Domains at the 9th International Conference on Intelligent Tutoring Systems (ITS 2008)*. Berlin: Springer Verlag.

Ogan, A., Jones, C., and Aleven V. (2007). Intelligent Tutoring in a Cultural Discussion Forum. Presented, *European Computer Assisted Language Learning (EuroCALL 2007)*. Ulster, Northern Ireland, September 2007.

Walker, E., and **Ogan, A.** (2007) Peer Moderation in Cultural Discussion Forums. Presented, *European Computer Assisted Language Learning (EuroCALL 2007)*. Ulster, Northern Ireland, September 2007.

Walker, E., **Ogan, A.**, and Wylie, R. (2006). A Tense Situation: Applying Cognitive Tutor Methodology to Ill-Defined Domains. Presented, *European Computer Assisted Language Learning (EuroCALL 2006)*. Granada, Spain, September 2006.

Ogan, A., Jones, C., and Aleven, V. (2006). Focusing attention on critical moments: evaluation of a system for teaching intercultural competence. Presented, *European Computer Assisted Language Learning (EuroCALL 2006)*. Granada, Spain, September 2006.

Ogan, A., Wylie, R., and Walker, E. (2006). Defining the ill-defined: Modeling student behavior in making aspectual distinctions. *Student Track Paper at the 8th International Conference on Intelligent Tutoring Systems (ITS 2006)*, Jhongli (Taiwan), National Central University.

Ogan, A., Aleven, V., & Jones, C. (2006). Culture in the classroom: challenges for assessment in ill-defined domains. In V. Aleven, K. Ashley, C. Lynch, & N. Pinkwart (Eds.), *Proceedings of the Workshop on Intelligent Tutoring Systems for Ill-Defined Domains at the 8th International Conference on Intelligent Tutoring Systems* (pp. 92-100). Jhongli (Taiwan), National Central University.

Ogan, A., Wylie, R., and Walker, E. (2006). The challenges in adapting traditional techniques for modeling student behaviors in ill-defined domains. In V. Aleven, K. Ashley, C. Lynch, & N. Pinkwart (Eds.), *Proceedings of the Workshop on Intelligent Tutoring Systems for Ill-Defined Domains at the 8th International Conference on Intelligent Tutoring Systems* (pp. 92-100). Jhongli (Taiwan), National Central University.

Research Experience

Social Motivation and Learning from Virtual Humans, 2008-Present
Human-Computer Interaction Institute and Institute for Creative Technologies
Working with Vincent Aleven, Chris Jones, and Julia Kim to evaluate BiLAT, an educational game for negotiation with cultural awareness, and design interventions to increase social motivation and learning

Attributions Towards Virtual Humans in an Educational Game, 2007-2008
Institute for Creative Technologies, University of Southern California

Worked with H. Chad Lane to conduct think-alouds on students' attributions towards characters in BiLAT and investigate their relation to learning and gameplay

Scaffolding Video Viewing for French Culture, 2004-2007

Human-Computer Interaction Institute, Carnegie Mellon University

Worked with Vincent Aleven and Chris Jones to augment a model of intercultural learning in an online tutoring system and analyze students' collaborative discussion

Adding Game Elements to the French Aspect Tutor, 2007-2009

Human-Computer Interaction Institute, Carnegie Mellon University

Worked with Erin Walker, Ruth Wylie, and Nicole Hallinen to investigate the role of game elements and narrative in learning language from a tutoring system

Assessing Everyday Math Games, 2007

Department of Psychology, Carnegie Mellon University

Worked with Marsha Lovett and Elida Laski to investigate Everyday Math games with respect to Gee's principles of learning from games

Geometry Natural Language Explanation Tutor, 2002-2004

Pittsburgh Advanced Cognitive Tutor Center, Carnegie Mellon University

Worked with Vincent Aleven to develop the tutor by analyzing natural language dialogues and improving tutor feedback messages in response to student explanations

Teaching Experience

Teaching Assistant, Programming Usable Interfaces, Professor Jason Hong, 2008

Course Development and Teaching Assistant, Educational Game Design, Professor Vincent Aleven and Eben Myers, 2007

Teaching Assistant, Cognitive Modeling and Intelligent Tutoring Systems, Professor Vincent Aleven, 2006

Mentor, Pittsburgh Science of Learning Summer School, 2005, 2006, 2009

Mentor, Nicole Hallinen, Adding game elements to the French Aspect Tutor project

Resident Director, Pennsylvania Governor's School for Sciences, 2003, 2004

Oversaw daily operations of the Governor's School for 90 students and 18 TAs

Teaching Assistant, Pennsylvania Governor's School for Sciences, 2001, 2002

CS, machine learning, parallel programming, graphic design

Mentored research projects in neural networks and biometric authentication

Lectures given

"Introduction to Human-Computer Interaction" – *Technology in the developing world*

"Games and Girls" – *Design of educational games*

"Motivation" – *Design of educational games*

"User data collection" – *Design of educational Games*

"Difficulty Factors Assessment" – *Cognitive modeling and intelligent tutoring systems*

"Educational Games" – *Cognitive modeling and intelligent tutoring systems*

Grants & Contracts Social interactions with virtual humans in BiLAT

University of Southern California
\$100,000 with Vincent Alevan and Christopher Jones

Improving French cultural learning through prediction
Pittsburgh Science of Learning Center
\$94,000 with Vincent Alevan and Christopher Jones

Adding game elements to the French Aspect Tutor
Research Assistance for Graduate Students award
\$1000 with Ruth Wylie and Erin Walker

Graduate Student Small Project Help (GUSH)
Carnegie Mellon University
\$500 award

Honors & Awards *Program in Interdisciplinary Educational Research Fellowship, Institute of Education Sciences*
Doctoral Consortium Fellowship, 2009 AIED Conference, Brighton, England
Phi Beta Kappa Honor Society
Phi Sigma Iota International Foreign Language Honor Society
María Purificación Aguilar Award, Top Honors in the Modern Languages Dept.
Excellence in Service Award, Pennsylvania Governor's School for the Sciences

Organized Workshops & Symposia *Virtual Environments for Cultural Learning, CERCLL 2010*
Co-organized with H. Chad Lane (USC) and Julie Sykes (U. New Mexico)
Intelligent Educational Games, AIED 2009
Co-organized with Valerie Shute (FSU) and H. Chad Lane (USC)
Workshop on Cognitive Tutor Authoring Tools, iSLC 2009
Co-organized with Ruth Wylie (CMU), Erin Walker (CMU), and Ido Roll (UBC)

Academic Service *Co-chair of Student Volunteers, Intelligent Tutoring Systems conference, ITS 2010*
Program Committee, Florida Artificial Intelligence Research Society, FLAIRS-23
Student Volunteer, Human-Computer Interaction International, HCII 2009
Program Committee, Culturally-Aware Tutoring Systems Workshop, AIED 2009
Student Volunteer, Internat'l Workshop on Intercultural Collaboration, IWIC 2009
EdBag Seminar Coordinator, CMU Psychology Dept. Seminar Series, 2008/09
Program Committee, Culturally-Aware Tutoring Systems Workshop, ITS 2008
Organizing Committee, Speech & Language Technologies in Education, SLaTE 2007
Student Volunteer, Artificial Intelligence in Education, AIED 2009
Executive Committee Student Rep., Pittsburgh Science of Learning Center, 2007
Graduate Student Leadership Team, Pittsburgh Science of Learning Center, 2006/07
Reviewer, Computer-Human Interaction, Artificial Intelligence in Education, International Journal of Learning Technology, Intelligent Tutoring Systems, Handbook of Culturally-Aware Tutoring Systems

Outreach

I work with groups like Women@SCS, techGYRLS, and Creative TechNights, traveling to local schools to encourage girls to consider careers in computer science. With the Pittsburgh Science of Learning Center, I have spoken at Historically Black Colleges and Universities (HBCU) to encourage minorities to participate in graduate work in the learning sciences.