

Nathan Nichols

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Education:

Ph.D. candidate, Electrical Engineering and Computer Science, Northwestern University. Advisor: Kristian Hammond. Proposed thesis title: "Machine-Generated Content: Moving the Media Experience Beyond Personalization." Expected defense June 2010.

M.A., Electrical Engineering and Computer Science, Northwestern University. Concentrations: Cognitive Systems, Intelligent Information Systems. 2007.

B.A., Computer Science, DePauw University. Thesis: "Computer Simulation of Early Hunter-Gatherer Societies." 2005.

Teaching Experience:

Instructor, Northwestern University, Department of Electrical Engineering and Computer Science. Responsible for designing and teaching a new course titled "Development for Mobile Devices". Responsible for designing course, delivering all class sessions, holding office hours, and evaluating student performance. Spring 2009.

Teaching Assistant, Northwestern University, Department of Electrical Engineering and Computer Science. Advised and led small groups of undergraduates in semester-long independent projects. 2005-2009.

Research Experience:

Research Assistant, Northwestern University, Department of Electrical Engineering and Computer Science, Intelligent Information Laboratory. 2005-present.

Research Assistant, DePauw University, Science Research Fellows. 2002-2003.

Grants, Awards and Honors:

Terminal Year Fellowship, BJ Martin Endowment, Northwestern University.

Illinois Technology Alliance's "50 for the Future" award winner, 2009.

Cognitive Systems Grant, Northwestern University.

Graduated Magna Cum Laude, DePauw University.

Honor Scholar, DePauw University.

Science Research Fellow, DePauw University.

Publications:

Gandy, Lisa. Nichols, Nathan. Hammond, Kristian. "News at Seven: The Future of the Future." Best Short Video and Best Student Video nominees, International Joint Conference on Artificial Intelligence, 2009.

Nichols, Nathan. Gandy, Lisa. Hammond, Kristian. "From Generating to Mining: Automatically Scripting Conversation Using Existing Online Sources." The Proceedings of the Third International Conference on Weblogs and Social Media, 2009.

Nichols, Nathan. Hammond, Kristian. "Machine-Generated Multimedia Content." Proceedings of the Second International Conference on Advances in Computer-Human Interactions, 2009.

Nichols, Nathan. Hammond, Kristian. Birnbaum, Larry. Gandy, Lisa. "Pivot: Automatically Offering Information and Services to Real-World Shoppers." Proceedings of the 2008 International Conference on Next Generation Mobile Applications, Services, and Technologies.

Nichols, Nathan. Liu, Jiahui. Pardo, Bryan. Hammond, Kristian. Birnbaum, Larry. "Learning to Gesture: Applying Animations to Spoken Text." Proceedings of the 15th International Conference on Multimedia, 2007.

Nichols, Nathan. Hammond, Kristian. Shamma, David. Owsley, Sara. "Believable Performance Agent for Interactive Conversations." Proceedings of the 2006 ACM Special Interest Group in Computer-Human Interaction International Conference on Advances in Computer Entertainment Technology.

Forbus, Ken. Hinrichs, Tom. Nichols, Nathan. "Using Qualitative Reasoning in Learning Strategy Games: A Preliminary Report." Proceedings of the 20th International Workshop on Qualitative Reasoning, 2006.

Talks:

Research talk, "Machine-Generated Content", Amherst College, 2009.

Guest lecture, "Design & Iteration", Human Computer Interaction, DePauw University, 2009.

Presented paper, "Pivot: Automatically Offering Information and Services to Real-World Shoppers." Next-Generation Mobile Applications, Services, and Technologies. Cardiff, Wales. 2008.

Invited panel participant, "Information Mashups: Aggregation, Syndication, and Web Services," at the Computational Journalism Symposium, 2008.

Invited Public Demonstrations:

News at Seven, Media Entertainment and Technology Summit 2009, Chicago Booth School of Business, Chicago.

News at Seven, WIRED NextFest 2008, Chicago.

News at Seven, WIRED NextFest 2007, Los Angeles.

Research Interests:

Machine-generated content, intelligent information systems, computationally augmented news and journalism, human-computer interaction, information retrieval, multimedia systems, web mining, machine learning.

Skills and Qualifications:

Experienced in rapidly designing, prototyping, and implementing information systems.

Programming Languages: Python, Ruby, Objective-C, Java, C#, C++, MySQL.

Web Technologies: Javascript, HTML, CSS, AJAX.