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CURRENT POSITIONS

Principal Investigator of the Intelligent Technologies for Teaching and Learning group in the USC Information Sciences Institute (ISI). Several NSF programs support the projects.

Research Assistant Professor in the Department of Computer Science at USC, since 2001.

EDUCATION

Ph.D. Computer Science, University of Southern California, CA.

Thesis: Bounding the Cost of Learned Rules: A Transformational Approach
Advisor : Paul S. Rosenbloom (USC/ISI)

M.S. Computer Science and Statistics, Seoul National University, Seoul, Korea.

Thesis : Building Interface for Accessing Database Management System
or Expert System Shell

**B.S. Computer Science and Statistics, Seoul National University, Seoul, Korea.
(Cum Laude)**

RESEARCH INTERESTS

Online discourse analysis: user modeling based on information seeking and information providing roles within online discussion boards and wikis, intelligent guidance for promoting collaborative problem solving.

Educational data mining: intelligent instructor aid for student online learning assessment, workflow environment that supports efficient and robust assessment of student learning.

Semantic approaches to workflow systems: knowledge-based techniques to support reasoning on large computational experiments, approach to explore the space of possible experiments with varying degrees of detail and varying amounts of constraints.

Interactive knowledge acquisition: applying human-tutorial dialogue strategies in managing knowledge acquisition dialogue, developing evaluation methodologies for knowledge acquisition tools.

PROFESSIONAL ACTIVITIES

Workshop/Tutorial Chair

Intelligent User Interfaces Conference, 2005

Publicity Chair

AI in education Conference, 2007

Intelligent User Interfaces Conference, 2004

Intelligent User Interfaces Conference, 2003

Services for Government Organization

NSF Panel (ITR)

Department of Energy Proposal Review Panel

Workshops Organized:

2010 AAAI Fall symposium proposal: Proactive Assistant Agents

2008 IUI workshop on Collaboration and Recommendation

2007 K-CAP Workshop on Knowledge Capture and Constraint Programming

2007 AAAI Spring Symposium on Interaction Challenges for Artificial Assistants

Program Committee/Reviewer:

Journals/Books

Educational Data Mining

IEEE Transactions on Automation Science and Engineering

Concurrency and Computation: Practice and Experience

Journal of Web Semantics

International Journal of Human Computer Studies

Applied Ontology

IEEE Transactions on Knowledge and Data Engineering

Intelligent Systems

IEEE Expert

International Journal of Ubiquitous Convergence Technology

Metareasoning

Conferences

International Conference on Knowledge Capture

National Conference on Artificial Intelligence

International Conference on Intelligent User Interfaces

International Conference on Autonomous Agents and Multiagent Systems

The Annual Conference of the Cognitive Science Society

International Conference on Knowledge Capture

International Conference on Intelligent User Interfaces

American Educational Research Association

International Conference of Knowledge Engineering and Knowledge Management

IFCIS Conference on Cooperative Information Systems

International Conference on Tools with Artificial Intelligence

Computer Aided Design of User Interfaces Conference

AAAI symposiums

Workshop on Knowledge Acquisition, Modeling and Management

AAMAS Workshop on Agents Learning Interactively from Human Teachers

ITS Workshop on Culturally-Aware Tutoring Systems

Services to Korean Organizations

Executive Director, US-Korea Conference on Science, Technology, and Entrepreneurship, 2010.

President, KOCSEA (Korean Computer Scientists and Engineers Association in America) 2007-2008

Finance Officer, KOCSEA 2004-2006

Other Services:

Program Committee, AAAI/SIGART Doctoral Consortium, 2010, 2009, 2007, 2005

Organizer, ISI, ISD retreat, 2008

Organizer, Open house for Information Sciences Institute, 2005.

AWARDS

Meritorious Service Award, University of Southern California/ Information Sciences Institute, 2005.

Best Paper Award, with Jim Blythe, Surya Ramachandran, and Yolanda Gil. "An integrated environment for knowledge acquisition", Intelligent User Interface Conference (IUI-2001).

Meritorious Service Award, University of Southern California/ Information Sciences Institute, 1997.

Second place in the 5th Annual AAI Mobile Robot Competition and Exhibition, 1996.

Academic Achievement Award, Office for International Students and Scholars, University of Southern California, 4/1996.

Cum Laude, Seoul National University, Korea, 1988.

University Scholarship, Seoul National University, Korea, 1984-1988.

ACADEMIC SERVICES at USC

PhD Admissions Committee

Computer Science Dept, 2003-2007

Research Activities Presentation (organizer)

Computer Science Dept, 2005, 2006

Research faculty hire (committee member)

Computer Science Dept, 2003, 2006

ADVISING

Graduate student advising and co-authored papers

Computer Science, PhD Students

Jeon-Hyung Kang (current) - 2 research papers

Sujith Ravi (past) - 2 research papers, 1 book chapter

Marc Spraragen (past) - 2 research papers, 1 journal papers

Donghui Feng (past) - 5 research papers

Jia Li (visitor from Shanghai Jiatong University) - 3 research papers

PhD thesis committee

Vesile Evrim (2007)

Linguistics, PhD Students

Erin Tavano - 2 research papers

Ann Sawyer

Computer Science, Masters Students

Jun Ma - 1 research paper
Chitrabharathi Ganapathy
Yi Jin
Biren Barodia
Taehwan Kim - 3 research papers
Srujankumar Vegesna
Pachara Supanakoon - 2 research papers
Aniwat Arromratana - 2 research papers
Pankaj Sarda - 2 research papers
Sattawat Suppalertporn
Roshan Herbert - 2 research papers
Parthiban Ramasubramanian
Amit Agarwal
Sid Shaw
Zeeshan Maqbool - 1 research paper

Undergraduate student advising and co-authored papers

Joanna Drummond (CRA-W Distributed Research Experiences for Undergraduates program, 2010)
Meera Srinivasan (CISE fellowship, 2009)
Robert Ward (USC URAP undergraduate research program, 2008)
David Lin (USC URAP undergraduate research program, 2007)
Bernadette Aurelio (USC URAP undergraduate research program, 2007)
Grace Chern (USC undergraduate summer research program, 2005) - 4 research papers
Varun Bahda (USC undergraduate summer research program, 2004) - 1 research paper
Edward Kim (NSF SURE/REU program, 2003)
Robert Garcia (UCLA research intern, 2009)
Saul Wyner (UCLA research intern, 2008-2009) - 2 research papers
Nathan Pepper (UCLA research intern, 2007)

Post Doctoral Scholar

JaeBong Yoo

Other Teaching, Advising, and Academic Service

AAAI/SIGART Doctoral Consortium, 2010, 2009, 2007, 2005

Korean-Computer Science and Engineers Association Scholarship (Chair), 2007-2008

GRANTS

Pedagogical Games (pre-award): developing and evaluate a fledgling secondary school curriculum for learning standards-based content via game-making. The use of collaborative communication technologies combined with novel tools for discourse assessment will support and enhance creativity in problem finding as well as problem solving.

Funder: National Science Foundation, Creative IT program.

Award number and amount: \$650,000.

Principal Investigators: Jihie Kim (**PI**), Erin Shaw(co-PI) Luciano Norcera (Senior Personnel) and Jim Baker(co-PI).

Period of performance: June 2010 - May 2013.

Pedagogical Wiki: performing instructional assessment of Wiki use in engineering courses through discourse analysis and topic classification.

Funder: National Science Foundation, CCLI (Course Curriculum and Lab Improvement) Phase 1 program.

Award number and amount: #0941950, \$170,000

Principal Investigators: Jihie Kim (**PI**), Erin Shaw(co-PI)

Period of performance: April 2010 - March 2012.

Pedagogical Workflows: creating a workflow framework that supports the efficient assessment of student learning through interactive generation and execution of various assessment workflows. Unlike in many existing workflow systems, the task of student assessment includes steps that cannot be fully automated, such as obtaining grade, background and student survey information. We plan to model manual steps as workflow components. The system will provide assistance in executing the manual steps.

Funder: National Science Foundation, CISE (Directorate of Computer, Information Science and Engineering) program.

Award number and amount: #0917328, \$451,531

Principal Investigators: Jihie Kim (**PI**), Erin Shaw(co-PI), Gisele Ragusa (Co-PI), Yolanda Gil (Co-PI)

Period of performance: September 2009 - August 2011.

Pedagogical Discourse: National Science Foundation (NSF) (#0618859) is a study (8/2006) for scaffolding and assessing student interactions within online discussion boards. Using analyses of the discourse, course ontologies and student profiles, we will scaffold learning opportunities by connecting students to each other and to related course material and discussions. We will work with undergraduate computer science students. Participating institutions include USC, UC Irvine and Tulane University.

Funder: National Science Foundation, CCLI (Course Curriculum and Lab Improvement) Phase 2 program.

Award number and amount: #0917328, \$450,000

Principal Investigators: Jihie Kim (**PI**), Erin Shaw(co-PI), Carole Beal (Co-PI)

Period of performance: Sept 2006 - August 2010.

Online Discourse Analysis: 2010. Supervising undergraduate student intern during the summer.

Funder: CDC/CRA-W Distributed Research Experiences for Undergraduates (DREU).

Award amount: \$4,500

Period of performance: Summer 2010.

Intramural Grants

WiSE Supplemental Research Grant, 2010

Undergraduate Research Intern Grant, Summer 2010, Fall 2006.

WiSE undergraduate research assistant support, 2009

Summer Internship Grant, 2005 and 2006

LICENCING

Wings: Workflow INstance Generation and Selection, NSF, AFRL. (May 30, 2007 - Present).

KANAL (Knowledge Analysis). (April 2003 - Present).

RESEARCH PROJECTS

- PedGames (Pedagogical Games). Developing a fledgling secondary school curriculum for learning standards-based content via game-making and evaluating use of collaborative communication technologies, NSF CreativeIT project, (June 2010- May 2013).
- PedWiki (Pedagogical Wiki). Instructional assessment of Wiki use in engineering courses through discourse analysis and topic classification, NSF CCLI project, April 2010- March 2012.
- PedWorkflow (Pedagogical Workflow System). Developing a workflow environment that supports efficient assessment of student learning through interactive generation and execution of various assessment workflows, NSF CISE project, <http://pedwork.isi.edu>, September 2009- August 2011.
- PedDiscourse (Pedagogical Discourse Analysis). Assessing student activities in threaded on-line discussions and providing answers to student queries. (<http://ai.isi.edu/discourse>), NSF CCLI project August 2006 - July 2010.
- Wings (Workflow INstance Generation and Selection). Developing approaches to workflow creation and validation that uses semantic representations to describe complex scientific applications in a data-independent manner, then automatically generates workflows of computations for given data sets, and finally maps them to available computing resources, 2007--2009.
- Hypothesis Management for Learning by Instruction. Managing the gaps and imperfections that appear naturally in human instruction. DARPA Bootsrap Learning project, 2008.
- Maven (Learning Problem Solver). A meta controller for coordinating learning activities by multiple learners. (<http://www.isi.edu/ikcap/maven>). DARPA Integrated Learning project, 2007.
- JIST (Just-In-caSe just-in-Time Intelligence Analysis). An interactive web-based interface for argumentation and decision-making. (<http://www.isi.edu/ikcap/jist>). AFSOR project, 2007.
- CAT (Composition Analysis Tool) and WINGS. CAT facilitates interactive construction of workflows (computation pathways) where users select and connect existing workflow components, and the system interactively generates assistance in completing a correctly formulated pathway. (<http://www.isi.edu/ikcap/scec/CAT/>), 2004--2006.
- ECHO (mEta-Cognitive History analysis and Organization). Developing memory-based meta-level reasoning tool for interactive knowledge capture. It estimates the confidence level of learned knowledge using past problem solving episodes and provides suggestions to improve the knowledge and make the problem solving more successful. (<http://www.isi.edu/ikcap/echo/>). DARPA Rapid Knowledge Formation project., 2003--2006.
- SLICK (Skills for Learning to Interactively Capture Knowledge). Developing acquisition interfaces that are proactive learners, able to reason about learning activities and with initiative in participating in the process accordingly. (<http://www.isi.edu/ikcap/slick/>). DARPA Rapid Knowledge Formation project. 2002-2004.
- KANAL (Knowledge ANALysis). A Tool for checking process models entered by users. By relating different pieces of information in process models among themselves and to the existing KB, it performs a variety of verification and validation checks and propose useful fixes. (<http://www.isi.edu/ikcap/kanal/>). DARPA Rapid Knowledge Formation project, 2001--2003.
- EMeD(Expect Method Developer). A tool to guide knowledge base creation based on interdependency analysis. (<http://www.isi.edu/~jihie/EMeD/emed.html>). DARPA High Performance Knowledge Bases project, 1998 -- 2000.

- Developing KA (knowledge Acquisition) Evaluation Methodology. DARPA High Performance Knowledge Bases project, 2000-- 2002.
- Active Catalogs project. Building ontologies for components and component properties in electro-mechanical design domain. The ontologies, including product taxonomies, application ontology and function ontology, can support different search capabilities, including mechanisms for mapping and combining different types of requirement to create database queries. Generating database search interface based on product properties and integrating the Active Catalog search system with the product model generation and simulation. DARPA RADIO project, 1996-1999.
- Speedup Learning in Soar. Investigating the sources of expensiveness in speed-up learning through a transformational analysis of the learning process, and eliminating the sources based on the analysis (<http://www.isi.edu/soar/soar-homepage.html>), 1993 --1996.
- The YODA Robot Project. Responsible for navigation planning and designing/testing robot behaviors for the task of office navigation and meeting arrangement, 1996.
- The Expert Systems Shell Project. Computers Science and Statistics Department, Seoul National Univeristy, Conducted research in designing an interface between a DBMS and an expert system shell, 1988 -- 1989.

PUBLICATIONS

Journal papers

Yolanda Gil, Varun Ratnakar, Jihie Kim, Pedro Gonzales-Calero, Paul Groth, Joshua Moody and Ewa Deelman, WINGS: Intelligent Workflow-Based Design of Computational Experiments, *IEEE Intelligent Systems*. (to appear)

Vijay S. Kumar; Tahsin Kurc; Varun Ratnakar; Jihie Kim; Gaurang Mehta; Karan Vahi; Yoonju Lee Nelson; P Sadayappan; Ewa Deelman; Yolanda Gil; Mary Hall; Joel Saltz, An Integrated Framework for Parameter-based Optimization of Scientific Workflows, *Cluster Computing*, 2010.

Yolanda Gil, Pedro González-Calero, Jihie Kim, Joshua Moody, and Varun Ratnakar, Automatic Generation of Computational Workflows from Workflow Templates Using Distributed Data and Component Catalogs, *Journal of Experimental and Theoretical Artificial Intelligence (JETAI)* (to appear).

Jihie Kim, Yolanda Gil, Marc Spraragen, Principles for Interactive Acquisition and Validation of Workflows, *Journal of Experimental and Theoretical Artificial Intelligence (JETAI)* Aug. 2009.

Jihie Kim and Yolanda Gil, Incorporating Tutoring Principles into Interactive Knowledge Acquisiiton, *International Journal of Human-Computer Studies* , Volume 65, Issue 10, October 2007, Pages 852-872.

Jihie Kim, , Ewa Deelman, Yolanda Gil, Guarang Mehta, Varun Rathnakar, " Provenance Trails in the Wings/Pegasus System", *Concurrency and Computation: Practice and Experience*, November, 2007.

P. Maechling, H. Chalupsky, M. Dougherty, E. Deelman, Y. Gil, S. Gullapalli, V. Gupta, C. Kesselman, J. Kim, G. Mehta, B. Mendenhall, T. Russ, G. Singh, M. Spraragen, G. Staples, and K. Vahi., Simplifying Construction of Complex Workflows for Non-Expert Users of the Southern

California Earthquake Center Community Modelling Environment, in *ACM SIGMOD Record*, special issue on Scientific Workflows, Volume 34 , Issue 3 (September 2005), 2005.

Jihie Kim, Peter Will, Ringo Ling and Robert Neches, "Active Catalog Services for Internet-Based Design", *Journal of Artificial Intelligence for Engineering Design, Analysis and Manufacturing (AI EDAM)*, Volume 17, issue 4, 2003.

Marcello Tallis, Jihie Kim and Yolanda Gil, "User Studies Knowledge Acquisition Tools: Methodology and Lessons Learned", *Journal of Experimental and Theoretical Artificial Intelligence*, 2001.

Jihie Kim and Paul. S. Rosenbloom, "Bounding the Cost of Learned Rules", *Artificla Intelligence Journal* Vol. 120, No.1, 2000, pp. 32--80

Wei-Min Shen, Jafar Abidi, Bonghan Cho, G. Kaminka, Jihie Kim, Behnam Salemi, Sheila Tejada, "YODA: The young observant discovery agent", In *AI Magazine*, Spring 1997, 18(1).

Proceedings Edition

Lawrence Bergman, Jihie Kim, Bamshad Mobasher, Stefan Rueger, Stefan Siersdorfer, Sergej Sizov, Markus Stolze: *International workshop on recommendation and collaboration (ReColl 2008)*. Intelligent User Interfaces 2008: 439

Book Chapters

Jihie Kim, Karen Myers, Melinda Gervasio, Yolanda Gil, Goal-directed Metacontrol for Integrated Procedure Learning, MIT Press book on *Metareasoning*, (to appear).

Erin Shaw, Jihie Kim, Pedagogical discourse: tools for promoting learning and participation in an online discussion forum, *Online and Social Networking Communities: a Best Practice Guide for Educators*, by Karen Kear, (to appear).

Jihie Kim, Erin Shaw, Sujith Ravi, Mining Student Discussions to Profile Participation and Scaffold Learning, *The Educational Data Mining Handbook*, 2010.

Conference full papers

Jun Ma, Erin Shaw and Jihie Kim, Computational Workflows for Assessing Student Learning, *The 10th International Conference on Intelligent Tutoring Systems Conference (ITS 2010)*, 2010.

Jihie Kim, Erin Shaw, Saul Wyner, Taehwan Kim, and Jia Li, Discerning Affect in Student Discussions, *Annual Meeting of the Cognitive Science Society*, 2010.

Vijay S. Kumar, P. Sadayappan, Gaurang Mehta, Karan Vahi, Ewa Deelman, Varun Ratnakar, Jihie Kim, Yolanda Gil, Mary W. Hall, Tahsin M. Kurç, Joel H. Saltz: An integrated framework for performance-based optimization of scientific workflows, *Proceedings of the 18th ACM International Symposium on High Performance Distributed Computing*, (HPDC 2009): 177-186.

Jihie Kim and Erin Shaw, Pedagogical Discourse: Connecting Students to Past Discussions and Peer Mentors within an Online Discussion Board, *Innovative Applications of Artificial Intelligence (IAAI-2009)*, 2009.

Yolanda Gil, Jihie Kim, Gonzalo Florez, Varun Ratnakar, Pedro Gonzalo, Workflow Discovery Using Semantic Metadata, *International Conference on Knowledge Capture*, (K-CAP 2009), 2009.

Jihie Kim, Erin Shaw, Sujith Ravi, Erin Tavano, Aniwat Arromratana, and Pankaj Sarda, Scaffolding On-line Discussions with Past Discussions: An Analysis and Pilot Study of PedaBot, *The 9th International Conference on Intelligent Tutoring Systems Conference (ITS 2008)*, 2008.

Sujith Ravi and Jihie Kim, Profiling Student Interactions in Threaded Discussions with Speech Act Classifiers, *Proceedings of the AI in Education Conference*, 2007.

Yolanda Gil, and Varun Ratnakar, Ewa Deelman, Marc Spraragen, Jihie Kim, Wings for Pegasus: A Semantic Approach to Creating Very Large Scientific Workflows, *In the Nineteenth Conference on Innovative Applications of Artificial Intelligence (IAAI-2007)* , 2007.

J. Kim, Y. Gil, V. Ratnakar Semantic Metadata Generation for Large Scientific Workflows, *Proceedings of the International Semantic Web Conference (ISWC-2006)*, 2006.

D. Feng, J. Kim, E. Shaw, E. Hovy Towards Modeling Threaded Discussions through Ontology-based Analysis. *Proceedings of the National Conference on Artificial Intelligence (AAAI-06)*, 2006.

D. Feng, E. Shaw, J. Kim, E. Hovy Learning to Detect Conversation Focus of Threaded Discussions. *Proceedings of the Joint Human Language Technology Conference/Annual Meeting of the North American Chapter of the Assoc. for Computational Linguistics (HLT-NAACL 2006)*, 2006.

Donghui Feng, Erin Shaw, Jihie Kim, and Ed Hovy, An Intelligent Discussion-Bot for Answering Student Queries in Threaded Discussions, *Proceedings of the International Conference on Intelligent User Interfaces (IUI-2006)* , 2006.

Jihie Kim, From Reflection to Interaction: Use of Memory in Interactive Knowledge Acquisition, *Proceedings of Cognitive Science Annual Meeting*, (CogSci 2005), 2005.

Jihie Kim, Marc Spraragen, and Yolanda Gil An Intelligent Assistant for Interactive Workflow Composition, *Proceedings of the International Conference on Intelligent User Interfaces (IUI-2004)* , 2004.

M.Pool, K.Murray, J.Fitzgerald, M.Mehrotra, R.Schrag, J.Blythe, J.Kim, H.Chalupsky, P.Miraglia, T.Russ,D.Schneider Evaluating SME-Authored COA Critiquing Knowledge, *Proceedings of the International Conference on Knowledge Capture (K-CAP 2003)*, 2003.

Ken Barker, Jim Blythe, Gary Borchardt, Vinay K. Chaudhri, Peter E. Clark, Paul Cohen, Julie Fitzgerald, Ken Forbus, Yolanda Gil, Boris Katz, Jihie Kim, Gary King, Sunil Mishra, Ken Murray, Charley Otsott, Bruce Porter, Robert C. Schrag, Tomas Uribe, Jeff Usher, and Peter Z. Yeh. "A Knowledge Acquisition Tool for Course of Action Analysis". *The Fifteenth Innovative Applications of Artificial Intelligence Conference (IAAI-2003)*, Acapulco, Mexico, 2003.

Jihie Kim and Yolanda Gil "Interactive Acquisition of Behavior Models". *Proceedings of the 2003 Conference on Behavior Representation in Modeling and Simulation (BRIMS)*, 2003.

Jihie Kim and Yolanda Gil, "Proactive Acquisition from Tutoring and Learning Principles", *Proceedings of the Artificial Intelligence in Education (AIED 2003)*, 2003.

Jihie Kim and Jim Blythe, Supporting Plan Authoring and Analysis, *Proceedings of the Intelligent User Interfaces Conference*, Miami Beach, FL, 2003. (IUI-2003)

Jihie Kim and Yolanda Gil, Deriving Acquisition Principles from Tutoring Principles, *Proceedings of the Intelligent Tutoring Systems Conference*, Biarritz, France, June 5--7, 2002, (ITS-2002)

Yolanda Gil and Jihie Kim, Interactive Knowledge Acquisition Tools: A Tutoring Perspective, *Proceedings of the 24th Annual Meeting of the Cognitive Science Society*, George Mason University, Fairfax, Virginia, 2002 (COGSCI-2002).

Jihie Kim and Yolanda Gil, "Knowledge Analysis on Process Models", 2002, *Proceedings of the International Joint Conference on Artificial Intelligence*, pp. 165-168 (IJCAI-2001).

Jim Blythe, Jihie Kim, Surya Ramachandran, and Yolanda Gil, An Integrated Environment for Knowledge Acquisition, *Proceedings of the Intelligent User Interface Conference (IUI-2001)*, *Best Paper Award*.

Jihie Kim and Yolanda Gil, Acquiring Problem-Solving Knowledge from End Users: Putting Interdependency Models to the Test, *Proceedings of the Seventeenth National Conference on Artificial Intelligence*, 2000, pp. 223-229. (AAAI-2000)

Jihie Kim and Yolanda Gil, Interdependency-Based Interface for Acquiring Problem-Solving Knowledge, 2000, *Proceedings of the International Conference on Intelligent User Interfaces*, pp. 165-168 (IUI-2000).

Jihie Kim and Yolanda Gil, "Deriving Expectations to Guide Knowledge Base Creation", In proceedings of the Sixteenth National Conference on Artificial Intelligence, 1999, pp. 235- 241. (AAAI-99)

Murilo Coutinho, Ragy Eliesh, Jihie Kim, Vished Kumar, Ringo Ling, Bob Neches and Peter Will, Active Catalogs: Integrated Support for Component Engineering, *18th ASME Computers in Engineering Conference*, 1998 (ASME-98).

Ringo Ling, Jihie Kim, and Peter Will, "Active Catalog: Searching and Using Catalog Information in Internet-based Design", *17th ASME Computers in Engineering Conference*, 1997 (ASME-97).

Jihie Kim and Paul S. Rosenbloom, "Learning efficient rules by maintaining the explanation structure", *In proceedings of the Thirteenth National Conference on Artificial Intelligence*, 1996, pp.763-770 (AAAI-96).

Jihie Kim and Paul S. Rosenbloom, "Constraining learning with search control", *In proceedings of the Tenth International Conference on Machine Learning*, 1993, pp.174-181 (ML-93).

Thesis

Jihie Kim, "Bounding the Cost of Learned Rules: A Transformational Approach", Ph.D. Thesis, University of Southern California, 1996.

Jihie Kim, "Developing an interface for accessing data base management system from expert system shell", Masters Thesis, Seoul National University, 1990.

Other Referred papers (Symposiums and Workshops)

Jeon-Hyung Kang, Jihie Kim and Erin Shaw, A Network Analysis of Student Groups in Threaded Discussions, *The 10th International Conference on Intelligent Tutoring Systems Conference*, 2010.

Jeon-Hyung Kang, Jihie Kim and Erin Shaw, Profiling Student Groups in Online Discussion with Network Analysis, *Proceedings of the K-CAP 2009 workshop on Analyzing Social Media to Represent Collective Knowledge*, 2009.

Saul Wyner, Erin Shaw, and Taehwan Kim, Jia Li, Jihie Kim, Sentiment Analysis of a Student Q&A Board for Computer Science, *Proceedings of the IJCAI workshop on Computational Models of Natural Argument*, 2009.

Erin Shaw, Jihie Kim, Pachara Supanakoon, Mentor Match: Using student mentors to scaffold participation and learning within an online discussion board, *Proceedings of the AI in Education Conference 2009*.

Jihie Kim, Taehwan Kim, and Jia Li, Identifying Unresolved Issues in Online Student Discussions: A Multi-Phase Dialogue Classification Approach, *Proceedings of the AI in Education Conference 2009*.

Jihie Kim, Jia Li, Taehwan Kim: Identifying student online discussions with unanswered questions. *Proceedings of International Conference on Knowledge Capture 2009*.

Jihie Kim and Yolanda Gil (2008), Developing a Meta-Level Problem Solver for Integrated Learners, Metareasoning: *Thinking about thinking workshop in AAAI 2008*.

Vijay Kumar, Mary Hall, Jihie Kim, Yolanda Gil, Tahsin Kurc, Ewa Deelman, Joe Saltz, Designing and Parameterizing a Workflow for Optimization: A Case Study in Biomedical Imaging, *IPDPS / The Next Generation Software (NGS) Workshop*, 2008.

Sujith Ravi, Jihie Kim, and Erin Shaw (2007), Mining On-line Discussions: Assessing Technical Quality for Student Scaffolding and Classifying Messages for Participation Profiling, *Educational Data Mining workshop in AIED2007*.

Jihie Kim, Erin Shaw, Erin Tavano, Aniwat Arromratana, Pankaj Sarada, and Carole Beal, Towards automatic scaffolding of on-line discussions in engineering courses, *American Educational Research Association (AERA 2008)*, 2008.

Jihie Kim, Erin Shaw, Grace Chern and Roshan Herbert, Novel tools for assessing student discussions: Modeling threads and participant roles using speech act and course topic analysis, *Proceedings of the AI in Education Conference*, 2007.

Jihie Kim, Grace Chern, Erin Shaw, and Donghui Feng, Erin Shaw, An Intelligent Discussion-Bot for Guiding Student Interactions in Threaded Discussions , *Proceedings of the AAAI 2007 Spring Symposium on Interaction Challenges for Intelligent Assistants*, 2007.

Jihie Kim, Grace Chern, Donghui Feng, Erin Shaw, and Eduard Hovy, Mining and Assessing Discussions on the Web through Speech Act Analysis, *Proceedings of the ISWC'06 Workshop on Web Content Mining with Human Language Technologies*, 2006.

Jihie Kim, Grace Chern, and Erin Shaw, Towards automatic assessment of on-line discussions: Analyzing student "speech acts" , *American Educational Research Association (AERA 2007)*, 2007

Jihie Kim and Carole Beal, Turning quantity into quality: Supporting automatic assessment of on-line discussion contributions, *American Educational Research Association (AERA 2006)*, 2006.

Jihie Kim, Meta-Level Patterns for Interactive Knowledge Capture, *Proceedings of K-CAP 2005*, 2005.

Jihie Kim, Memory-Based Meta-Level Reasoning for Interactive Knowledge Capture, *Proceedings of the AAAI Spring Symposium on Metacognition in Computation*, 2005.

Yolanda Gil, Tim Chklovski, and Jihie Kim, Organizing Argumentation Statements to Support Intelligence Analysis, *Proceedings of the Intelligent User Interfaces for Intelligence Analysis Workshop*, 2005.

Jihie Kim, Carole Beal, and Zeeshan Maqbool, Developing Teaching Aides for Distance Education, *Proceedings of the AI in Education (AIEd 2005)*, 2005

Jihie Kim, Marc Spraragen, and Yolanda Gil, A Knowledge-Based Approach to Interactive Workflow Composition, *Proceedings of ICAPS Workshop on Planning and Scheduling for Web and Grid Services, at the 14th International Conference on Automatic Planning and Scheduling*, 2004.

Jihie Kim and Yolanda Gil, Towards Interactive Composition of Semantic Web Services, *Proceedings of the AAAI Spring Symposium on Semantic Web Services*, 2004.

Jihie Kim and Yolanda Gil, Towards Interactive Composition of Semantic Web Services, *2nd International Semantic Web Conference (ISWC 2003)*, 2003.

Jihie Kim and Jim Blythe, Supporting Plan Authoring and Analysis, *Proceedings of K-CAP Workshop on Capturing Knowledge from Domain Experts: Progress and Prospects 2003*.

Jihie Kim, "Dialogue Manager for Knowledge Acquisition", In *K-CAP workshop on Interactive Tools for Knowledge Capture* (2001).

Yolanda Gil, Jim Blythe, Jihie Kim and Surya Ramachandran, "Acquiring Procedural Knowledge in EXPECT", In *AAAI 2000 Fall Symposium on Learning How to Do Things*.

Mark Musen, Jihie Kim and Natasha Noy, "DARPA HPKB program", *Knowledge Acquisition Workshop*, 1999.

Jihie Kim, Ringo Ling, and Peter Will, "Ontology Engineering for Active Catalog", 1997, 1997.

Jihie Kim and Paul S. Rosenbloom, "Transformational analyses of learning in Soar", Technical Report, ISI/RR-95-4221, Information Sciences Institute and Computer Science Department, University of Southern California, 1995.

Jihie Kim, "Learning high utility rules by incorporating search control", Technical Report, USC-CS-94-580, 1994.

Jihie Kim and Suk I. Yoo, "A design of an interface for accessing data base management system from expert system shell", In *proceedings of the Korean Information Science Society*, 1989.

Jihie Kim and Paul S. Rosenbloom, "Mapping EBL onto Soar", Fifteenth Soar Workshop, Carnegie Mellon University, September 15-17, 1995, pp.156-158.

Jihie Kim and Paul S. Rosenbloom, "A transformational analysis of chunking", Fifteenth Soar Workshop, Carnegie Mellon University, September 15-17, 1995, pp.110-112.

Jihie Kim and Paul S. Rosenbloom, "A transformation from problem solving to chunking", Fourteenth Soar Workshop, The University of Michigan. December 9-11, 1994, pp.1-5.

Jihie Kim and Paul S. Rosenbloom, "Constraining learning with search control", Twelfth Soar Workshop, University of Southern California. June 4-6, 1993.

Jihie Kim and Paul S. Rosenbloom, "Solving the expensive chunks problem", Eleventh Soar Workshop, Carnegie Mellon University, October 23-25, 1992.