

SANDRA CARBERRY

PERSONAL DATA

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RESEARCH INTERESTS

Graph Retrieval, Natural language understanding, response generation, user modelling, dialogue systems, summarization, digital libraries, intelligent interfaces, plan recognition.

EDUCATION

<u>School</u>	<u>Major</u>	<u>Degree</u>	<u>Years</u>
University of Delaware	Computer Science	Ph.D.	1981-1985
Rice University	Computer Science	M.S.	1968-1970
Cornell University	Mathematics	B.A.	1962-1966

HONORS AND AWARDS

Best Paper Award at 11th International Conference on User Modeling (2008)
James Chen Award for 2006 Best Paper in *User Modeling and User-Adapted Interaction*
Best Paper Award at International Conference on Theory and Application of Diagrams (2006)
1993 University-wide Excellence in Teaching Award
Excellence in Teaching Award, University of Delaware Student Chapter of the ACM
Award of Excellence, Technical Communications Competition,
Society for Technical Communication, for *Principles of Computer Science*
Frank A. Pehrson Outstanding Graduate Student in Computer Science Award
Phi Kappa Phi
Sigma Xi
University of Delaware Graduate Fellowship
Rice University Graduate Fellowship

PROFESSIONAL EXPERIENCE

- 2016 - present Professor Emeritus, Dept. of Computer and Information Sciences,
University of Delaware.
- 2004 - 2016 Professor, Dept. of Computer and Information Sciences
Joint Appointment in Dept. of Linguistics
University of Delaware
- 1999 - 2004 Professor and Chair, Dept. of Computer and Information Sciences
Joint Appointment in Dept. of Linguistics
University of Delaware
- 1993 - 1994 Visiting Associate Professor, Dept. of Computer and Information Sciences
University of Pennsylvania
- 1990 - 1999 Associate Professor, Dept. of Computer and Information Sciences
Joint Appointment in Dept. of Linguistics
University of Delaware
- 1985 - 1990 Assistant Professor, Dept. of Computer and Information Sciences
Joint Appointment in Dept. of Linguistics
University of Delaware
- 1979-1981 Lecturer, Dept. of Computer and Information Sciences
University of Delaware
- 1977-1979 Extension Faculty, Dept. of Computer and Information Sciences
University of Delaware
- 1970-1976 Instructor, Dept. of Statistics and Computer Sciences
University of Delaware
- 1967-1968 Member of Technical Staff
Bell Telephone Laboratories

PROFESSIONAL ACTIVITIES

- Program Chair (with Stephan Weibelzahl), 21st International Conference on User Modeling, Adaptation, and Personalization, 2013
- Program Chair (with Steve Clark), 48th Annual Meeting of the Association for Computational Linguistics, 2010
- Editorial Board: International Journal on User Modeling and User-Adapted Interaction (1990-2016)
- Editorial Board: Journal of Dialog Systems (2006-2012)
- Editorial Board: ISRN Artificial Intelligence (2011-2013)
- Guest Editor (with Fiorella DeRosis): Special Issue on Affective Computing, *User Modeling and User-Adapted Interaction*, 2008
- Guest Editor (with Ingrid Zukerman): Special Issue on Language-Based Interaction, *User Modeling and User-Adapted Interaction*, 2005
- Associate Editor: International Journal of Human-Computer Studies (1992-2004)
- Editorial Board: Computational Linguistics Journal (1992-1994)
- Guest Editor: Special Issue on Deployed Systems, *User Modeling and User-Adapted Interaction*, 10(2-3) 2000
- Secretary, Association for Computational Linguistics (2000-2005)
- Past Secretary and Exec Board, Association for Computational Linguistics (2006)
- Franklin Institute Committee on Science and Arts (2001-2005)
- Director-at-large, User Modeling (2002-present)
- Vice-president, User Modeling (1999-2002)
- Executive Board, North American chapter of ACL (1999-2000)
- Organizing Committee for North American chapter of ACL (1998-1999)
- Secretary, User Modeling (1996-1999)
- Science Advisory Board for SIGDIAL—Special Interest Group on Dialogue) (1998-1999)
- Program Committee Co-Chair: 48th Annual Meeting of the Association for Computational Linguistics (ACL)
- Co-Chair: Doctoral Consortium for International Conference on User Modeling, Adaptation, and Personalization (2009)
- Senior Program Committee: Fourteenth National Conference on Artificial Intelligence (1997)
- Program Committee Co-Chair: Fifth International Conference on User Modeling (1996)
- Program Committee Co-Chair: The Next Generation of Plan Recognition Systems: Challenges for and Insight from Related Areas of AI, Workshop in conjunction with IJCAI-95
- Program Committee Co-Chair: ACL-93 Student Session
- Local Arrangements Chair: 30th Annual Meeting of the Association for Computational Linguistics (1992)
- Program Co-Chair: UM-05 Workshop on Adapting the Interaction Style to Affective Factors, 2005
- Program Committee:
- Annual Meeting of the Association for Computational Linguistics (2013, 2008, 2004, 2003, 1998, 1997, 1996, 1988)
 - International Conference on Natural Language Generation (2004, 2002)
 - International Symposium on Methodologies for Intelligent Systems (2012, 2011, 2009, 2008, 2006, 2005, 2004, 2002, 2001, 2000, 1999)
 - International Conference on User Modeling (2012, 2011, 2010, 2007, 2005, 2003, 2001, 1999, 1997)
 - Biennial Meeting of the European Association for Computational Linguistics (2009)
 - SIGdial Meeting on Discourse and Dialogue (2013, 2012, 2011, 2008, 2006, 2004, 2003, 2001)
 - International Conference on Intelligent Text Processing and Computational Linguistics (2013, 2011)
 - Asia Information Retrieval Societies Conference (2011)
 - Conference of the Pacific Association for Computational Linguistics (2013, 2011, 2009, 2007, 2005, 2003, 1999)
 - IJCAI Workshop on Knowledge and Reasoning in Practical Dialogue Systems (2013, 2011, 2009, 2007, 2005)

Conference of the North Atlantic Chapter of the Association for Computational Linguistics (2013)
The Fourth Symposium on Natural Language Processing (2000)
Florida AI Symposium (2004)
AAAI Spring Symposium on Computational Models for Mixed Initiative Interaction (1997)
International Conference on Spoken Language Processing (1996)
Twelfth National Conference on Artificial Intelligence (1994)
29th Annual Meeting of the Association for Computational Linguistics (Student Session) (1991)
Organizing Committee for various workshops (1990-2004)
Graduate Program Review Panel, Univ. of Maryland at Baltimore County, 2001.
NSF Committee of Visitors for Evaluation of Graduate Traineeship Program (1996)
NSF Proposal Review Panels
Oak Ridge Graduate Fellowship Panel
American Federation of Information Processing Societies Education Committee (1988-1990)
University of Delaware Corporate Rep. to the American Association for University Women (1990-1991)

RESEARCH GRANTS

NSF Grant No. 1016916: *Exploiting Information Graphics in a Digital Library*. September 2010 - August 2015, University of Delaware budget \$395,056 (with additional funds to Millersville University with Stephanie Elzer as PI)

REU supplements to NSF Grant No. 1016916: *Exploiting Information Graphics in a Digital Library*. June, 2011-June, 2012. \$8,000. June, 2012-June, 2013. \$8,000. June, 2013-June, 2014. \$8,000.

NIDRR Grant. *Multimodal Access to Information Graphics*. October 2008 - October 2011, \$598,236. (with Ken Barner, Kathy McCoy, and a subcontract to Stephanie Elzer)

NSF Grant No. IIS-0534948: *Exploiting Communicative Signals to Summarize Information Graphics*. January 2006 - December 2009, \$327,835.

NSF CSEMS 0323999: Undergraduate Scholarships for Advancing Education in Mathematics, Computer Science and Engineering. Co-Principal Investigators: Johnnie Burton, David Olagunju, Johnson Olowolafe, Michael Vaughan, Sept. 2003 - August 2008, \$399,170 .

NSF EHR Grant No. HRD-0086424: "An Experiment in Engaging High School and Undergraduate Women in Computer Science". Co-Principal Investigators: Lori Pollock and Kathleen McCoy. January 2001 - June 2003, \$99,992.

NSF Parallel and Distributed Computing: System and Application Development Infrastructure. Co-Principal Investigators: Lori Pollock, Errol Lloyd, Guang Gao, and Gagan Agrawal. July 1997 - June 2002, \$633,513.

National Institute of Health, Grant No. 1-RO1-LN-05764-01 for *Effective Means of On-Time Information Delivery to Clinical Personnel*. Co-Principal Investigators: Bonnie Webber (University of Pennsylvania) and John Clarke (Allegheny University of the Health Sciences). University of Delaware subcontract: \$201,562 for March 1995 - November 1998

NSF Grants for Research and Education in Science and Engineering, Grant No. GER-9354869 for *Graduate Research Traineeships in Natural Language Human-Computer Interfaces*. Co-Principal Investigators: Kathleen McCoy and K. Vijay-Shanker. October 1993 - March 2000. \$564,000.

NSF Division of Information, Robotics, and Intelligent Systems, Grant No. IRI-9122026 for research entitled *An Incremental Tripartite Model of Consultation Dialogues and Negotiation Subdialogues*. June 1992 - Nov. 1995. \$179,916.

NSF Division of Information, Robotics, and Intelligent Systems, REU Supplement to Grant No. IRI-9122026, June 1995 - Nov. 1995, \$5,588.

NSF Division of Information, Robotics, and Intelligent Systems, Grant No. IRI-8909332 for research entitled *Robust Plan Recognition in Dialogue*. Sept. 1989 - Feb. 1992. \$67,598.

University of Delaware Research Foundation Grant entitled *User Modeling in Natural Language Systems*. 1987-1988. \$12,000.

NSF Division of Computer Research, Computer Research Equipment Grant, 1987. Co-Principal Investigators: Dr. Daniel Chester and Dr. Kathleen McCoy \$54,398.

PUBLICATIONS

Books:

Carberry, Sandra. *Plan Recognition in Natural Language Dialogue*, ACL-MIT Press Series on Natural Language Processing, MIT Press, 1990.

Carberry, Sandra, A. Toni Cohen, and Hatem Khalil. *Principles of Computer Science: Concepts, Algorithms, Data Structures, and Applications*, Computer Science Press, 1986

Carberry, Sandra, Hatem Khalil, James Leathrum, and Leon Levy. *Foundations of Computer Science*, Computer Science Press, 1979.

Previously published as *General Computer Science*, Charles Merrill Company, 1976

Journal Papers, Book Chapters, and Highly Refereed Conference and Workshop Papers

Richard Burns, Sandra Carberry, and Stephanie Elzer Schwartz. An automated approach for the recognition of intended messages in grouped bar charts. *Computational Intelligence*. Volume 35, Issue 4, pp. 9551002, 2019.

Priscilla Moraes, Kathleen McCoy, and Sandra Carberry. Enabling Text Readability Awareness During the Micro Planning Phase of NLG Applications. *Proceedings of the International Conference on Natural Language Generation*, 2016.

Richard Burns, Eric Balawejder, Wiktoria Domanowska, Stephanie Elzer Schwartz and Sandra Carberry. Exploring the Types of Messages That Pie Charts Convey in Popular Media. *Proceedings of the International Conference on the Theory and Application of Diagrams*, 2016.

Zhui Li, Sandra Carberry, Hui Fang, Kathleen McCoy, Kelly Peterson, and Matthew Stagitis. A Novel Methodology for Retrieving Infographics Utilizing Structure and Message Content. *Data and Knowledge Engineering*, pages 191-210, 2015.

Richard Burns, Sandra Carberry, and Stephanie Elzer Schwartz. Classifying Salient Textual Entities in

the Headlines and Captions of Grouped Bar Charts. In Proceedings of the 28th International Florida Artificial Intelligence Research Society Conference, pp. 217-220, 2015.

Christopher Boston, Hui Fang, Sandra Carberry, Hao Wu, and Xitong Liu. Wikimantic: Toward Effective Disambiguation and Expansion of User Queries. *Data and Knowledge Engineering*, pages 22-37, 2014.

Zhuo Li, Sandra Carberry, Hui Fang, Kathleen McCoy, and Kelly Peterson. Infographics Retrieval: A New Methodology.. Proceedings of the International Conference on Natural Language Processing and Information Systems. Pages 101-113, 2014.

Zhuo Li, Sandra Carberry, Hui Fang, and Kathleen McCoy. Identifying Important Features for Graph Retrieval. Proceedings of 25th International Conference on Computational Linguistics, pages 600-609, 2014.

Priscilla Moraes, Gabriel Sina, Kathleen McCoy, and Sandra Carberry. Evaluating the accessibility of line graphs through textual summaries for visually impaired users. Proceedings of the 16th international ACM SIGACCESS conference on Computers and accessibility. Pages 83-90, 2014. /vspace*.15in
Priscilla Moraes, Kathy McCoy, and Sandra Carberry. Adapting Graph Summaries to the Users Reading Levels. Proceedings of the 8th International Natural Language Generation Conference, Pages 64-73, 2014.

Priscilla Moraes, Gabriel Sina, Kathy McCoy, and Sandra Carberry. Generating Summaries of Line Graphs. Proceedings of the 8th International Natural Language Generation Conference, Pages 95-98, 2014.(This is a demo paper for the SIGHT system.)

Richard Burns, Sandra Carberry, and Stephanie Elzer Schwartz. Analyzing the Effect of Communicative Evidence in a Bayesian System for Grouped Bar Charts. Proceedings of the 27th Flairs Conference, Pages 14-17, 2014.

Zhuo Li, Matthew Stagitis, Sandra Carberry, and Kathleen McCoy. Towards Retrieving Relevant Information Graphics. Proceedings of the 36th International ACM SIGIR Conference on Research and Development in Information Retrieval. Pages 789-792, 2013.

Seniz Demir, Stephanie Schwartz, Richard Burns, and Sandra Carberry. What is Being Measured in an Information Graphic. International Conference on Intelligent Text Processing and Computational Linguistics (CICLING), Pages 501-512. 2013.

Richard Burns, Sandra Carberry, and Stephanie Schwartz. Modeling a Graph Viewer's Effort in Recognizing Messages Conveyed by Grouped Bar Charts. Proceedings of the 21st International Conference on User Modeling, Adaptation, and Personalization, pages 114-126, 2013.

Zhuo Li, Matthew Stagitis, Kathleen McCoy, and Sandra Carberry. Towards Finding Relevant Information Graphics: Identifying the Independent and Dependent from User-Written Queries. Proceedings of the 26th International FLAIRS Conference, <http://www.aaai.org/ocs/index.php/FLAIRS/FLAIRS13/paper/view/5> 2013.

Richard Burns, Stephanie Schwartz, and Sandra Carberry. Towards Adapting Information Graphics to Individual Users to Support Recognizing Intended Messages, Proceedings of the First International

Workshop on User-Adaptive Visualization, ceur-ws.org/Vol-997/wuav2013_paper_01.pdf, 2013.

Priscilla Moraes, Sandra Carberry, and Kathleen McCoy. Providing Access to the High-level Content of Line Graphs from Online Popular Media. *Proceedings of 10th International Cross-Disciplinary Conference on Web Accessibility*, pages 1-10, 2013.

Seniz Demir, Sandra Carberry, and Kathleen McCoy. Summarizing Information Graphics Textually. *Computational Linguistics Journal*, 38(3), pp. 527-574, 2012.

Sandra Carberry, Stephanie Elzer, Kathleen McCoy, Seniz Demir, Peng Wu, Charles Greenbacker, Daniel Chester, Edward Schwartz, David Oliver, and Priscilla Moraes. "Access to Multimodal Articles from Popular Media for Individuals with Sight Impairments", *ACM Transactions on Intelligent Interactive Systems*, 2(4), pp. 1-49, 2012.

Richard Burns, Sandra Carberry, Stephanie Elzer, and Daniel Chester. "Automatically Recognizing Intended Messages in Grouped Bar Charts", *Proceedings of the International Conference on the Theory and Application of Diagrams*, pp. 8-22, 2012. Received Student Best Paper Award.

Christopher Boston, Sandra Carberry, and Hui Fang. "Wikimantic: Disambiguation for Short Queries", *Proceedings of the International Conference on Applications of Natural Language Processing to Information Systems*, pp. 140-151, 2012.

Sandra Carberry, Stephanie Elzer, Richard Burns, Peng Wu, Daniel Chester, Seniz Demir. Information Graphics in Multimodal Documents. Book chapter in *Multimedia Information Extraction*, Mark Maybury, Editor, Wiley: IEEE Computer Society Press, pp. 235-252, 2012.

Stephanie Elzer, Sandra Carberry, and Ingrid Zukerman. The Automated Understanding of Simple Bar Charts. *Artificial Intelligence Journal*, 175(2), pages 526-555, 2011.

Peng Wu and Sandra Carberry. Toward Extractive Summarization of Multimodal Documents. *Proceedings of the Canadian AI Workshop on Text Summarization*, pages 53-64, 2011.

Charles Greenbacker, Kathleen McCoy, Sandra Carberry, and David McDonald. Semantic Modeling of Multimodal Documents for Abstractive Summarization. *Proceedings of the Canadian AI Workshop on Text Summarization*, pages 29-40, 2011.

Charles Greenbacker, Peng Wu, Sandra Carberry, Kathleen McCoy, Stephanie Elzer, David McDonald, Daniel Chester, Seniz Demir. Improving Accessibility of Multimodal Documents. *Proceedings of the Second Workshop on Speech and Language Processing for Assistive Technologies*, pages 52-62, 2011.

Charles Greenbacker, Peng Wu, Sandra Carberry, Kathleen McCoy, Stephanie Elzer. Abstractive Summarization of Line Graphs from Popular Media. *Proceedings of the Workshop on Automatic Summarization for Different Genres, Media, and Languages*, pages 41-48, 2011.

Seniz Demir, David Oliver, Edward Schwartz, Stephanie Elzer, Sandra Carberry, Kathleen McCoy, and Daniel Chester. Interactive SIGHT: Textual Access to Simple Bar Charts. *New Review of Hypermedia and Multimedia*, 16(3), pp. 245-279, 2010.

Peng Wu, Sandra Carberry, and Stephanie Elzer. Recognizing the Intended Message of Line Graphs. *International Conference on the Theory and Application of Diagrams*, pp. 220-234, 2010, Received

Student Best Paper Award.

Seniz Demir, Sandra Carberry, and Kathleen McCoy. A Discourse-Aware, Graph-Based Content Selection Framework. *Proceeding of the Sixth International Natural Language Generation Conference*, pp. 17-25, 2010.

Seniz Demir, David Oliver, Edward Schwartz, Stephanie Elzer, Sandra Carberry, and Kathleen McCoy. Interactive SIGHT into Information Graphics. *Proceedings of the International Cross-Disciplinary Conference on Web Accessibility*, 2010.

Peng Wu, Sandra Carberry, and Stephanie Elzer. Segmenting Line Graphs into Trends, *Proceedings of the Twelfth International Conference on Artificial Intelligence*, pp. 697-703, 2010.

Stephanie Elzer, Edward Schwartz, Sandra Carberry, Daniel Chester, Seniz Demir, and Peng Wu. Bar Charts in Popular Media: Conveying their Message to Visually Impaired Users via Speech. Book Chapter in *Advances in Intelligent Information Systems*, Zbigniew W. Ras and Li-Shiang Tsay editors, pages 275-298, 2010.

Richard Burns, Sandra Carberry, and Stephanie Elzer. Visual and Spatial Factors in a Bayesian Reasoning Framework for the Recognition of Intended Messages in Grouped Bar Charts. *Proceedings of the AAAI Workshop on Visual Representations and Reasoning*, pp. 6-13, 2010.

Richard Burns, Stephanie Elzer, and Sandra Carberry. Modeling Relative Task Effort for Grouped Bar Charts. *Proceedings of the Annual Conference of the Cognitive Science Society*, pages 2292-2297, 2009. (Full paper with oral presentation).

Seniz Demir, Sandra Carberry and Stephanie Elzer. Issues in realizing the overall message of a bar chart. Book Chapter in *Recent Advances in Natural Language Processing*, Nicolas Nicolov, Galia Angelova and Ruslan Mitkov editors, John Benjamins publisher, pages 311-320, 2009.

Richard Burns, Sandra Carberry, and Stephanie Elzer. Processing Information Graphics in Multimodal Documents. *Proceedings of the AAAI Fall Symposium on Multimedia Information Extraction*, pages 5-9, 2008.

Richard Burns, Stephanie Elzer, and Sandra Carberry. Estimating Effort for Trend Messages in Grouped Bar Charts. *Proceedings of the International Conference on the Theory and Application of Diagrams*, pages 353-356, 2008.

Seniz Demir, Sandra Carberry, and Kathleen McCoy. Generating Textual Summaries of Information Graphics. *Proceedings of the International Conference on Natural Language Generation*, pages 7-15, 2008.

Sandra Carberry and Stephanie Elzer. Toward Effective Processing of Information Graphics in Multimodal Documents: A Bayesian Network Approach. In *Computational Intelligence in Multimedia Processing: Recent Advances*, Aboul-Ella Hassanien, Ajith Abraham, and Janusz Kacprzyk, Editors, Springer, pp. 191-212, 2008.

Peng Wu, Sandra Carberry, Daniel Chester, and Stephanie Elzer. Decision Tree Induction for Identifying Trends in Line Graphs. *Proceedings of the 17th International Symposium on Methodologies for*

Intelligent Systems (ISMIS-08), pp. 399-409, 2008.

Stephanie Elzer, Edward Schwartz, Sandra Carberry, Daniel Chester, Seniz Demir, and Peng Wu. Accessible Bar Charts for Visually Impaired Users. *Proceedings of Fourth Annual IASTED International Conference on Telehealth and Assistive Technologies*, pages 55-60, 2008.

Sandra Carberry and Stephanie Elzer. “Exploiting Evidence Analysis in Plan Recognition”, *Proceedings of the 11th International Conference on User Modeling*, pp. 7-16, 2007. (Received Best Paper Award)

Stephanie Elzer, Edward Schwartz, Sandra Carberry, Daniel Chester, Seniz Demir, and Peng Wu. “A Browser Extension for Providing Visually Impaired Users Access to the Content of Bar Charts on the Web”, *Proceedings of the International Conference on Web Information Systems and Technology*, pp. 59-66, 2007.

Seniz Demir, Sandra Carberry, and Stephanie Elzer. “Effectively Realizing the Inferred Message of an Information Graphic”, *Proceedings of Recent Advances in Natural Language Processing (RANLP-07)*, pp. 150-156, 2007.

Sandra Carberry, Stephanie Elzer, and Seniz Demir. “Information Graphics: An Untapped Resource for Digital Libraries”, *Proc. of the 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, pp. 581-588, 2006.

Stephanie Elzer, Nancy Green, Sandra Carberry, and James Hoffman. “A Model of Perceptual Task Effort for Bar Charts and its Role in Recognizing Intention”, *International Journal on User Modeling and User-Adapted Interaction*, 16(1), pp. 1-30, 2006. (received 2006 James Chen Best Paper Award)

Stephanie Elzer, Sandra Carberry, and Seniz Demir. “Communicative Signals as the Key to Automated Understanding of Bar Charts”, *Proceedings of the International Conference on the Theory and Application of Diagrams*, 2006. (received Best paper Award)

Stephanie Elzer, Sandra Carberry, Ingrid Zukerman, Daniel Chester, Nancy Green, and Seniz Demir. “A Probabilistic Framework for Recognizing Intention in Information Graphics”, *Proceedings of the Nineteenth International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1042-1047, 2005.

Stephanie Elzer, Sandra Carberry, Daniel Chester, Seniz Demir, Nancy Green, Ingrid Zukerman, and Keith Trnka. “Exploring and Exploiting the Limited Utility of Captions in Recognizing Intention in Information Graphics”, *Proceedings of the 43rd Annual Meeting of the Association for Computational Linguistics*, pp. 223-230, 2005.

Terrence Harvey, Sandra Carberry, and Keith Decker. “Tailored Responses for Decision Support”, *Proceedings of the 10th International Conference on User Modeling*, pp. 164-168, 2005.

Terrence Harvey, Keith Decker, and Sandra Carberry. “Multi-Agent Decision Support Via User-Modeling”, *proceedings of the Fourth International Joint Conference on Autonomous Agents and Multi Agent Systems*, pp. 222-229, 2005.

Stephanie Elzer, Nancy Green, Sandra Carberry, and James Hoffman. Incorporating Perceptual Task Effort into the Recognition of Intention in Information Graphics. *Proceedings of the Third International Conference on the Theory and Application of Diagrams*, pp. 255-270, 2004.

Lori Pollock, Kathleen McCoy, Sandra Carberry, Namratha Hundigopal, and Xiaoxin You. Increasing High School Girls' Self Confidence and Awareness of CS Through a Positive Summer Experience, Proc. of ACM SIGSCE Technical Symposium on Computer Science Education, 2004.

Stephanie Elzer, Nancy Green, and Sandra Carberry. Exploiting Cognitive Psychology Research to Recognize Intentions in Information Graphics. Proceedings of the 25th Annual Meeting of the Cognitive Society Conference, 2003, CD-ROM.

Stephanie Elzer, Nancy Green, Sandra Carberry, and Kathleen McCoy. Extending Plan Inference Techniques to Recognize Intentions in Information Graphics. *Proceedings of the 9th International Conference on User Modeling*, pp. 122-132, 2003.

Sandra Carberry, Lynn Lambert, and Leah Schroeder. Toward Recognizing and Conveying An Attitude of Doubt Via Natural Language. *Applied Artificial Intelligence*, 16(7), pp. 495-517, 2002.

Sandra Carberry, Ken Samuel, K. Vijay-Shanker, and Andrew Wilson. Randomized Rule Selection in Transformation-Based Learning: A Comparative Study. *Natural Language Engineering*, 7(2), pp. 99-116, 2001.

Sandra Carberry. Toward A Robust Dialogue System: Recognizing Dialogue Acts. (Paper for Invited Talk). Proceedings of the Pacific Conference on Computational Linguistics, 2001.

Kathleen McCoy, Sandra Carberry, Tom Roper, and Nancy Green. Towards Generating Textual Summaries of Graphs. *Proceedings of the 1st International Conference on Universal Access in Human-Computer Interaction*, pp. 695-699, 2001.

Sandra Carberry. Techniques for Plan Recognition. *User Modeling and User-Adapted Interaction*, 11(1-2), pp. 31-48, 2001.

Leah Schroeder and Sandra Carberry. Realizing Expressions of Doubt in Collaborative Dialogue. *Proceedings of the 18th International Conference on Computational Linguistics*, pp. 740-746, 2000.

Jennifer Chu-Carroll and Sandra Carberry. Conflict Resolution in Collaborative Planning Dialogues. *International Journal of Human-Computer Studies*, 53(6) pp. 969-1015, 2000.

Nancy Green and Sandra Carberry. Interpreting and Generating Indirect Answers. *Computational Linguistics*, 25(3), pp. 389-435, 1999.

Sandra Carberry and Jennifer Chu-Carroll and Stephanie Elzer. Constructing and Utilizing a Model of User Preferences in Collaborative Consultation Dialogues. *Computational Intelligence*, 15(3), pp. 185-217, 1999.

Nancy Green and Sandra Carberry. A Computational Mechanism for Initiative in Answer Generation. *User Modeling and User-Adapted Interaction*, 9(1-2), pp. 93-132, 1999.

Sandra Carberry and Lynn Lambert. A Process Model for Recognizing Communicative Acts and Modeling Negotiation Subdialogues. *Computational Linguistics*, 25(1), pp. 1-53, 1999.

Ken Samuel, Sandra Carberry and K. Vijayashanker. Automatically Selecting Useful Phrases for Dialogue Act Tagging. Proceeding of the Meeting of the Pacific Association for Computational Linguistics,

1999.

Bonnie Webber, Sandra Carberry, John R. Clarke, Abigail Gertner, Terrence Harvey, Ron Ryman, and Richard Washington. Exploiting Multiple Goals and Intentions in Decision Support for the Management of Multiple Trauma: A Review of the TraumAID Project. *Artificial Intelligence Journal*, 105(1-2), pp. 263-293, 1998.

Jennifer Chu-Carroll and Sandra Carberry. Collaborative Response Generation in Planning Dialogues. *Computational Linguistics*, 24(3), pp. 355-400, 1998.

Ken Samuel, Sandra Carberry, and K. Vijay-Shanker. An Investigation of Transformation-Based Learning in Discourse. *Proceedings of the International Conference on Machine Learning (ICML)*, pp. 497-505, 1998.

Ken Samuel, Sandra Carberry, and K. Vijay-Shanker. Dialogue Act Tagging with Transformation-Based Learning. *Proceedings of the 36th Annual Meeting of the Association for Computational Linguistics and 17th International Conference on Computational Linguistics (ACL-COLING)*, pp. 1150-1156, 1998.

Terrence Harvey and Sandra Carberry. Integrating Text Plans for Conciseness and Coherence. *Proceedings of the 36th Annual Meeting of the Association for Computational Linguistics and the 17th International Conference on Computational Linguistics (ACL-COLING)*, pp. 512-518, 1998.

Sandra Carberry, Terrence Harvey, and John R. Clarke M.D. Integrating Communicative Goals for Real-time Clinical Decision Support. *Proceedings of the American Medical Informatics Association Annual Fall Symposium*, pp. 734-738, 1997.

Sandra Carberry and John R. Clarke M.D. TraumaCASE: Exploiting the Knowledge Base of an Existing Decision Support System to Automatically Construct Medical Cases. *Proceedings of the Tenth International Symposium on Methodologies for Intelligent Systems*, pp. 456-466, 1997.

Sandra Carberry and Terrence Harvey. Generating Coherent Messages in Real-time Decision Support: Exploiting Discourse Theory for Discourse Practice. *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society*, pp. 79-84, 1997.

Sandra Carberry and John R. Clarke M.D. Generating Clinical Exercises of Varying Difficulty. *Proceedings of the Seventh International Conference on User Modeling (UM-97)*, pp. 273-275, 1997.

Sandra Carberry and Jennifer Chu-Carroll. User Models in Adaptive Systems. In *Encyclopedia of Microcomputers*, Allen Kent and James Williams, editors, Marcel Dekker Publishers, vol. 19, pp. 275-292, 1997. Also appears in *Encyclopedia of Library and Information Science*, Allen Kent, editor, Marcel Dekker Publishers, pp. 348-366, 1993.

Jennifer Chu-Carroll and Sandra Carberry. Conflict Detection and Resolution in Collaborative Planning. In *Agent Theories, Architectures, and Languages, II*. Springer-Verlag Lecture Notes in Computer Science, pp. 111-126, 1996

Jennifer Chu-Carroll and Sandra Carberry. Generating Information-Sharing Subdialogues in Expert-User Consultation. *Proceedings of the 14th International Joint Conference on Artificial Intelligence*, pp. 1243-1250, Aug., 1995.

Jennifer Chu-Carroll and Sandra Carberry. Response Generation in Collaborative Negotiation. *Proceedings of the 33rd Annual Meeting of the Association for Computational Linguistics*, pp. 136-143, June 1995.

Jennifer Chu-Carroll and Sandra Carberry. Communication for Conflict Resolution in Multi-Agent Collaborative Planning. *Proceedings of the International Conference on Multi-Agent Systems*, pp. 49-56, June 1995.

Stephanie Elzer, Jennifer Chu-Carroll, and Sandra Carberry. Recognizing and Utilizing User Preferences in Collaborative Consultation Dialogues. *Proceedings of the Fourth International Conference on User Modeling*, pp. 19-24, 1994.

Jennifer Chu-Carroll and Sandra Carberry. A Plan-Based Model for Response Generation in Collaborative Task-Oriented Dialogues. *Proceedings of the Twelfth National Conference on Artificial Intelligence*, pp. 799-805, 1994.

Nancy Green and Sandra Carberry. A Hybrid Reasoning Model for Indirect Answers. *Proceedings of the 32nd Annual Meeting of the Association for Computational Linguistics*, pp. 58-65, 1994.

Nancy Green and Sandra Carberry. Generating Indirect Answers to Yes-No Questions. *Proceedings of the Seventh International Workshop on Natural Language Generation*, pp. 189-198, 1994.

Sandra Carberry and Alan Pope. Plan Recognition Strategies for Language Understanding. *International Journal of Man-Machine Studies*. vol. 39, pp. 529-577, 1993

Margaret Sarner and Sandra Carberry. Generating Tailored Definitions Using a Multifaceted User Model. *User Modeling and User-Adapted Interaction*, pp. 181-210, 1992.

Lynn Lambert and Sandra Carberry. Using Linguistic, Contextual, and World Knowledge in a Plan Recognition Model of Dialogue. *Proceedings of the 14th International Conference on Computational Linguistics*, pp. 310-316, 1992.

Lynn Lambert and Sandra Carberry. Modeling Negotiation Subdialogues. *Proceedings of the 30th Annual Meeting of the Association for Computational Linguistics*, pp. 193-200, 1992.

Nancy Green and Sandra Carberry. Conversational Implicatures in Indirect Replies. *Proceedings of the 30th Annual Meeting of the Association for Computational Linguistics*, pp. 64-71, 1992.

Rhonda Eller and Sandra Carberry. A Meta-Rule Approach to Flexible Plan Recognition in Dialogue. *User Modeling and User-Adapted Interaction*, pp. 27-53, 1992.

David Mooney, Sandra Carberry, and Kathleen McCoy. Capturing High-Level Structure of Naturally-Occurring Extended Explanations Using Bottom-up Strategies. *Computational Intelligence Journal*, pp. 334-356, 1991.

Lynn Lambert and Sandra Carberry. A Tripartite Plan-Based Model of Dialogue, *Proceedings of the 29th Annual Meeting of the Association for Computational Linguistics*, pp. 47-54, 1991.

Sandra Carberry. Incorporating Default Inferences into Plan Recognition. *Proceedings of the Eighth National Conference on Artificial Intelligence, AAAI*, pp. 471-478, 1990.

David Mooney, Sandra Carberry, and Kathleen McCoy. The Generation of High-Level Structure for Extended Explanations. *Proceedings of the 13th International Conference on Computational Linguistics*, pp. 276-281, 1990.

Margaret Sarner and Sandra Carberry. Tailoring Definitions Using a Multifaceted User Model. *Proceedings of the Eighth Canadian Conference on Artificial Intelligence*, pp. 106-113, 1990.

David Mooney, Sandra Carberry, and Kathleen McCoy. The Basic Block Model of Extended Explanation. *Proceedings of the International Workshop on Natural Language Generation*, pp. 112-119, 1990.

Carberry, Sandra. A Pragmatics Based Approach to Ellipsis Resolution. *Computational Linguistics Journal*, 15(2), pp. 75-96, 1989.

Carberry, Sandra. Plan Recognition and Its Use in Understanding Dialogue, *User Models in Dialogue Systems*, Alfred Kobsa and Wolfgang Wahlster, editors, Springer Verlag, pp. 133-162, 1989.

Carberry, Sandra and Kathleen Cebulka. Capturing Rational Behavior in Natural Language Information Systems. *Proceedings of the Seventh Conference on Artificial Intelligence and the Simulation of Behavior*, pp. 153-163, 1989.

Carberry, Sandra. Modeling the User's Plans and Goals, *Computational Linguistics*, 14(3), pp. 23-37, 1988.

Sarner, Margaret and Sandra Carberry. A New Strategy for Providing Definitions in Task-Oriented Dialogues. *Proc. of 12th International Conference on Computational Linguistics*, pp. 567-572, 1988.

Cebulka, Kathleen D., Sandra Carberry, and Daniel L. Chester. Solving Dynamic-Input Interpretation Problems Using Hypothesize-Test-Revise Paradigm. *Proceedings of the Fourth IEEE Conference on Artificial Intelligence Applications*, pp. 365-370, 1988.

Carberry, Sandra. Pragmatic Modeling: Toward a Robust Natural Language Interface, *Computational Intelligence Journal*, Vol. 3, pp. 117-136, 1987.

Carberry, Sandra. The Use of Inferred Knowledge to Understand Pragmatically Ill-Formed Queries, *Communication Failure in Dialogue*, Ronan Reilly, editor, North Holland, pp. 187-200, 1987.

Carberry, Sandra. User Models: The Problem of Disparity, *Proceedings of the 11th International Conference on Computational Linguistics*, pp.29-34, 1986.

Carberry, Sandra. TRACK: Toward a Robust Natural Language Interface, *Proceedings of the Sixth Canadian Conference on Artificial Intelligence*, pp.84-88, 1986.

Carberry, Sandra. A Pragmatics-Based Approach to Understanding Intersentential Ellipsis, *Proceedings of the 23rd Annual Meeting of the Association for Computational Linguistics*, pp.188-197, 1985.

Carberry, Sandra. Understanding Pragmatically Ill-Formed Input, *Proceedings of the 10th International Conference on Computational Linguistics and 22nd Annual Meeting of the Association for Computational Linguistics*, pp.200-206, 1984.

Carberry, Sandra. Tracking User Goals in an Information-Seeking Environment, *Proceedings of the National Conference on Artificial Intelligence*, pp.59-63, 1983.

Less Highly Refereed Conference Papers and Workshop Papers

Stephanie Elzer, Richard Burns, and Sandra Carberry. "The Role of Cognitive Modelling in an Automated System for Understanding Bar Charts". *Proceedings of the Workshop on Cognitive Models of Human Spatial Reasoning*, pages 1-6, 2008.

Sandra Carberry, Stephanie Elzer, Nancy Green, Kathleen McCoy, and Daniel Chester. Extending Document Summarization to Information Graphics. *Proceedings of the ACL Workshop: Text Summarization Branches Out*, pp. 3-9, 2004.

Sandra Carberry, Stephanie Elzer, Nancy Green, Kathleen McCoy, and Daniel Chester. Understanding Information Graphics: A Discourse-Level Problem. *Proceedings of the 4th SigDial Workshop on Discourse and Dialogue*, pp. 1-12, 2003.

Sandra Carberry and Leah Schroeder. Recognizing and Conveying Attitude and Its Underlying Motivation. *Proceedings of the UM2001 Workshop on Attitudes, Personality, and Emotions in User-Adapted Interaction*, 2001.

Sandra Carberry. Preface to the Special Issue on Deployed User Modeling Systems. *User Modeling and User-Adapted Interaction*, 10(2-3), pp. 77-80, 2000.

Sandra Carberry, Chandra Kambhampettu, and Leah Schroeder. Gestural Evidence and the Recognition of Attitude and Intention. *Proceedings of the UM99 Workshop on Attitude, Personality, and Emotions in User-Adapted Interaction*, pp. 11-15, 1999.

Ken Samuel, Sandra Carberry, and K. Vijayashanker. Computing Dialogue Acts from Features with Transformation-Based Learning. *Proceedings of the AAAI Spring Symposium on Applying Machine Learning to Discourse Processing*, pp. 90-97, 1998.

Sandra Carberry. Discourse Initiative: Its Role in Intelligent Tutoring Systems. *Proceedings of the AAAI Spring Symposium on Computational Models for Mixed Initiative Interaction*, pp. 10-15, 1997

Sandra Carberry, John Clarke, and Abigail Gertner. Automatic Construction of Medical Cases for Training and Testing Using the Knowledge Base of an Existing Decision Support System. *Proceedings of the 1996 AAAI Spring Symposium on Artificial Intelligence in Medicine*, pp. 16-20, 1996.

Jennifer Chu-Carroll and Sandra Carberry. Collaborative Interagent Communication: Architectural Requirements. *Proceedings of the AAAI-94 Workshop on Planning for Interagent Communication*, pp. 11-16, 1994.

Nancy Green and Sandra Carberry. A Discourse Plan-Based Approach to a Class of Particularized Conversational Implicature. *Proceedings of the 10th Annual Meeting of the Eastern States Conference on Linguistics*, pp.117-128, 1993.

Sandra Carberry, Jennifer Chu, and Lynn Lambert. User-System Conflict in Task-Oriented Consultation. *Proceedings of the 1993 IJCAI Workshop on Computational Models of Conflict Management in Cooperative Problem-Solving*, pp. 41-53, 1993.

Sandra Carberry, Jennifer Chu, Nancy Green, and Lynn Lambert. Rhetorical Structure Theory: Necessary but not Sufficient. *Proceedings of the ACL Workshop on Intentionality and Structure in Discourse*

Relations, 1993.

Sandra Carberry, Zunaid Kazi, and Lynn Lambert. Modeling Discourse, Problem-Solving, and Domain Goals Incrementally in Task-Oriented Dialogue. *Proceedings of the International Workshop on User Modeling*, pp. 192-201, 1992.

Lynn Lambert and Sandra Carberry. A Tripartite Plan Recognition Model for Structuring Discourse. *AAAI Fall Symposium on Discourse Structure in Natural Language Understanding and Generation*, pp. 41-46, 1991.

Mooney, David, Sandra Carberry, and Kathleen McCoy. The Need for Bottom-up Strategies for Generating High-Level Structure, *Proceedings of AAAI-91 Workshop on Comparative Analysis of Explanation Planning Architectures*, 1991.

Sandra Carberry. A Model of Plan Recognition that Facilitates Default Inferences. *Proceedings of the Second International Workshop on User Modeling*, 1990.

Margaret Sarnier and Sandra Carberry. Tailoring Explanations Using a Multifaceted User Model. *Proceedings of the International Workshop on User Modeling*, 1990.

Rhonda Eller and Sandra Carberry. A Meta-Rule Approach to Dynamic Plan Recognition. *Proceedings of the International Workshop on User Modeling*, 1990.

Mooney, David, Sandra Carberry, and Kathleen McCoy. *The Basic Block Model of Extended Explanation: An Overview*. AAAI-90 Workshop on Explanation Generation, 1990.

Other Publications (not including department technical reports)

Sandra Carberry and Leah Schroeder. Book Review of *Using Language* by Herbert Clark, *User Modeling and User-Adapted Interaction*, 10(4), pp. 305-308, 2000.

Sandra Carberry. Book Review of *Participating in Explanatory Dialogues* by Johanna Moore, *User Modeling and User-Adapted Interaction*, pp. 337-340, 1996.

Sandra Carberry. Book Review of *Explanation and Interaction: The Computer Generation of Explanatory Dialogues* by Alison Cawsey, *Computational Linguistics*, pp. 139-140, 1994.

Sandra Carberry. Second International Workshop on User Modeling: Workshop Report. *AI Magazine*, Vol. 11, Number 5, pp. 57-60, 1991.

Carberry, Sandra. Workshop Report: First International Workshop on User Modeling, *AI Magazine*, Vol. 8, Number 3, pp. 71-74, 1987.

Carberry, Mary Sandra. *Pragmatic Modeling in Information System Interfaces*, Ph.D. Dissertation, Department of Computer and Information Sciences, University of Delaware, Newark, Delaware, 1985.

INVITED PRESENTATIONS

User Modeling, Adaptation, and Personalization: The Past, The Present, The Future, Keynote Talk, International Conference on User Modeling and Adaptation, July 2016.

Toward Summarizing Information Graphics in Multimodal Documents, Dept. of Computer Science, University of Illinois, Urbana-Champaign, May, 2007.

Recognizing the Intended Message of an Information Graphic, Dept. of Computer Science, Cornell University, March, 2007.

Toward Understanding and Summarizing Information Graphics, Dept. of Computer Science, Florida Institute of Technology, January, 2006.

Extending Language Processing to Information Graphics, Dept. of Computer Science, Villanova University, October, 2005.

Toward Understanding and Summarizing Information Graphics, Dept. of Computer Science, Fudan University, Sept. 2005.

Toward Understanding and Summarizing Information Graphics, Computational Linguistics Research Group, Peking University, Sept. 2005.

Recognizing Intentions and Generating Responses In Collaborative Task-Oriented Dialogue, AI Group, Department of Computer Science, Cornell University, Sept. 1998.

Constructing Coherent Integrated Messages for Real-time Clinical Decision Support, Department of Medical Informatics, Columbia University, March 1998.

Recognizing Intentions and Generating Responses In Collaborative Task-Oriented Dialogue, Department of Computer Science, Carnegie Mellon University, Sept. 1997.

Modeling Intention: Toward a Robust Dialogue System, Department of Computer Science, Villanova University, Nov. 1996.

Modeling Intention: Issues for Spoken Language Dialogue Systems, Invited talk at the International Symposium on Spoken Dialogue, Oct. 1996.

Intelligent Systems for Precepting: Student Initiative and Student Responses, ONR Workshop on Tutorial Dialogue, National Academy of Science Study Center, Sept. 1996.

Plan Recognition in Intelligent Interfaces: Concepts, Approaches, Problems, ACM State of the Art Summer School on Intelligent and Natural Language Interfaces, Belis-Fintinele, Romania, July, 1996.

User Modeling in Intelligent Interfaces, ACM State of the Art Summer School on Intelligent and Natural Language Interfaces, Belis-Fintinele, Romania, July, 1996.

Generating Intelligent and Coherent Responses. ACM State of the Art Summer School on Intelligent and Natural Language Interfaces, Belis-Fintinele, Romania, July, 1996.

A Plan-Based Model of Collaborative Task-Oriented Dialogue, Department of Computer Science, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, May, 1995.

A Plan-Based Model of Collaborative Task-Oriented Dialogue, Department of Computer Science, University of Maryland Eastern Shore, Princess Anne, Maryland, March, 1995.

Natural Language Human Computer Interfaces: Report on Graduate Research Traineeships, National Science Foundation Conference: Joining Forces, Spreading Successful Strategies, Washington, D.C., February, 1995.

Participating in Collaborative Expert-Consultation Dialogues, Department of Computer Science, University of Waterloo, Waterloo, Ontario, Canada, October, 1994.

User-Modeling and User-Adapted Interaction, Tutorial presented with Alfred Kobsa at the 4th International Conference on User Modeling, Hyannisport, Massachusetts, August, 1994.

Participating in Collaborative Expert-Consultation Dialogues, Department of Computer Science, University of Rochester, Rochester, New York, April, 1994.

Participating in Collaborative Expert-Consultation Dialogues, Department of Computer Science, State University of New York at Buffalo, Buffalo, New York, April, 1994.

Participating in Collaborative Expert-Consultation Dialogues, Department of Computer and Information Science, University of Pennsylvania, Philadelphia, Pennsylvania, Nov. 1993.

User-Modeling and User-Adapted Interaction, Tutorial presented with Alfred Kobsa at the 13th International Joint Conference on Artificial Intelligence, Chambéry, France, August, 1993.

Modeling Intention in Expert Consultation Dialogues, Delaware Valley AI Forum, Philadelphia, Pennsylvania, April, 1993.

Modeling Intention in Expert Consultation Dialogues, Naval Research Lab, Washington, D.C., Jan. 1993.

Modeling Intention in Expert Consultation Dialogues, Department of Computer Science, Duke University, Durham, North Carolina, November, 1992.

Modeling Intention in Expert Consultation Dialogues, Department of Computer Science, Washington University, St. Louis, Missouri, November, 1992.

User-Modeling and User-Adapted Interaction, Tutorial presented with Alfred Kobsa at the 10th European Conference on Artificial Intelligence, Vienna, Austria, August, 1992.

User-Modeling and User-Adapted Interaction, Tutorial presented with Alfred Kobsa at the Tenth National Conference on Artificial Intelligence, AAAI, San Jose, California, July, 1992.

Strategies for Plan Inference, Army Research Office, Warrenton, Virginia, May, 1992.

Building and Exploiting a User Model in Natural Language Information Systems, Invited Talk at Darpa Workshop on Informalism, Santa Cruz, California, May, 1991.

Plan Recognition and Rational Decision-Making, Department of Computer Science, University of Waterloo, Waterloo, Ontario, Canada, February, 1991.

Plan Recognition and Rational Decision-Making, Delaware Valley AI Forum, Drexel University, Philadelphia, Pennsylvania, December, 1990.

Breaking the Communications Barrier Between People and Machines, United States Naval Academy, Annapolis, Maryland. November, 1989.

Reasoning About the User's Plans and Goals in Natural Language Information Systems, Cognitive Science Colloquium, Lehigh University, Bethlehem, Pennsylvania. May, 1989.

Modeling the Computer User's Plans and Goals, University of Delaware Research Foundation, Newark, Delaware, January, 1988.

User Modeling in a Robust Natural Language Interface, Navy Center for Applied Research in Artificial Intelligence, Washington, D.C., April, 1987

Plan Recognition in User Modeling, Department of Computer Science, University of Waterloo, Waterloo, Canada, March, 1987

Information System Interfaces: Problems and Directions, Management Information Systems Seminar, College of Business, University of Delaware, Newark, Delaware, May, 1986

Pragmatic Modeling: Toward a Robust Natural Language System, Bolt Beranek and Newman, Cambridge, Massachusetts, April, 1986

Pragmatic Modeling in Information System Interfaces, Cognitive Science Seminar, University of Delaware, Newark, Delaware, Feb., 1986

Pragmatic Modeling in Information System Interfaces, Department of Computer Science, University of Pennsylvania, Philadelphia, Pennsylvania, Feb., 1985

Pragmatic Modeling in Information System Interfaces, Department of Computer and Information Science, University of Delaware, Newark, Delaware, Jan., 1985

Interfaces to Database Management Systems, West Chester University, West Chester, Pennsylvania, March, 1982

Structured Programming: Theory and Practice, Central Research Division, duPont Company, Wilmington, Delaware, July, 1980

UNIVERSITY ACTIVITIES

Chair of Committee to review the Chair of Political Science (2011-2012)
Chair: WISE (Women in Science and Engineering) (2006-2010)
Chair: Search committee for Head of the Office of Womens Affairs (2007)
Mentoring Initiative Committee (2006-2007)
Lead PI on NSF funded proposal for undergraduate scholarships (2003-2008)
NCAA Certification: Academic Integrity Committee (2002-2003)
Women in Science and Engineering (2001-2010)
Commission on the Status of Women (2001-2008)
Search Committee, Dean of Arts&Science (2002)
College Budget Council (2001-2002)
Convener, Chairs Caucus Steering Committee (2001-2002)
Chair, Search Committee, Chair of Physics and Astronomy (2001)
Search Committee, Chair of Mathematics (2000-2001)
Chairs Caucus Steering Committee (2000-2002)
Search Committee, Dean of Engineering (1999-2000)
Arts and Science Research Advisory Council (1995-1999)
College Committee for Evaluation of Mathematics Department Chair (1996-1997)
College Committee for Evaluation of Mathematics Center (1993)
University Promotion and Tenure Workshop Panel (2001, 2000, 1993, 1991)
University Search Committee for Associate Provost for Research (1992)
University Honors Council (1987-1988)
University committee for Alan Colburn Dissertation Prize (1988)

DEPARTMENT ACTIVITIES

Chair, Undergraduate Committee (2011-2016)
Computer Science Executive Committee (2011-2016, 2010, 1994-1998, 2006-2007)
Chair, Department Recruiting Committee (1995-1998)
Computer Science Undergraduate Committee (2008-2016, 1986-1993, 2007)
Computer Science Faculty Recruiting Committee (1989-1993, 1994-1998, 2005,2006-2007)
Organization of Weekly AI Seminar (1985-1993, 1994-1997, 2006)
Undergraduate advisor (1986-1993, 1994-present)
Computer Science Associate Chair Recruiting Committee (1990)
Computer Science Lab Manager Recruiting Committee (1990-1991)
Computer Science Curriculum Review Committee (1989)
Computer Science Department Executive Committee (1988-1989)
Computer Science Chair Search Committee (1986-1989)
Computer Science Colloquium Committee (1985-1986)

PhD THESIS SUPERVISION AND EXTERNAL COMMITTEES

Completed Thesis Supervision (and current positions of graduates):

Zhuo Li (co-advised with Kathleen McCoy), *Methodologies for Infographics Retrieval*
PhD. May 2016. Postdoctoral Researcher, IBM T.J. Watson Research Center.
Priscilla Moraes (co-advised with Kathleen McCoy), *Generation of Textual Summaries
at Different Target Reading Levels*, PhD. May 2016. NLP Solutions Engineer at IBM.
Richard Burns, *Automated Intention Recognition of Grouped Bar Charts in Multimodal*

Documents, PhD. Jan. 2013. Associate Professor and Chair, Dept. of Computer Science, West Chester University.

Peng Wu, *Realizing the Intended Message of Line Graphs: Methodology and Applications*, PhD. Jan. 2012. Microsoft.

Seniz Demir, *SIGHT for Visually Impaired Users: Summarizing Information Graphics Textually*. PhD. May 2010. Scientific and Technological Research Council of Turkey.

Terrence Harvey, *Decision Support Communication: Enhancing Communicative Plans for a Dynamic User and Environment*. PhD. Dec. 2006. Assistant Professor, University of Delaware.

Stephanie Elzer, *A Probabilistic Framework for the Recognition of Intention in Information Graphics*. PhD. Dec. 2005. Professor and Chair, Dept. of Computer Science, Millersville University.

Ken Samuel (co-advised with K. Vijay-Shanker), *Discourse Learning: An Investigation of Dialogue Act Tagging Using Transformation-Based learning*. PhD. Jan. 2001. Senior Artificial Intelligence Engineer, Mitre.

Jennifer Chu-Carroll, *A Plan-Based Model for Response Generation in Collaborative Negotiation Dialogues*. PhD. Jan. 1997. Research Staff Member and Manager of Knowledge Structures Group, IBM

Nancy Green, *A Computational Model for Generating and Interpreting Indirect Answers* PhD Jan. 1995. Associate Professor, University of North Carolina at Greenville.

Rhonda Eller-Meshreki, *A Plan Recognition Architecture for Ill-Formed Dialogue* PhD. August, 1993. Associate Professor, Randolph-Macon College.

David Mooney (co-advised with K. McCoy), *Generating High-Level Structure for Extended Explanations* PhD. June 1993.

Lynn Lambert, *Recognizing Complex Discourse Acts: A Tripartite Model of Dialogue*, PhD. June 1993. Associate Professor, Christopher Newport University.

Margaret Sarner, *Tailored Definitions in Task-Oriented Dialogues*, Ph.D., January, 1992. Research scientist, E. I. duPont

Ph.D. Committees: External

Guido Boella, University of Torino, Italy, *Cooperation Among Economically Rational Agents*, (external evaluator), 2000

Toby Donaldson, University of Waterloo, *A Computational Model of Turn-taking in Discourse*, (external examiner), 1998

Carolyn Penstein-Rose, Carnegie-Mellon University, *Robust Interactive Dialogue Interpretation*, 1997

Abigail Gertner, University of Pennsylvania, *Critiquing: Effective Decision Support in Time-Critical Domains*, 1995

Susan Haller, State University of New York at Buffalo, *Interacting Plan Descriptions and Justifications*, (external reader), 1994

COURSES TAUGHT: 1985-2012

- CS889 Natural Language Processing Seminar: Empirical Methods in Discourse
- CS885 Natural Language Processing Seminar: Discourse and Dialogue
- CS889 Artificial Intelligence Seminar: Planning and Reasoning
- CS889 Artificial Intelligence Seminar: User Modeling
- CS481-681 Artificial Intelligence

CS483-683 Data Mining
CS437-637 Database Management Systems
CS301 Logic and Automata
CS303 Automata Theory
CS304 Logic and Programming
CS280 Program Development Techniques
CS260 Machine and Assembly Language Programming
CS180 Introduction to Computer Science (majors)
CS101 Introduction to Computers and Information Systems