

Curriculum Vitae

Michael Wollowski
Computer Science and
Software Engineering Department
Rose-Hulman Institute of Technology
5500 Wabash Ave.
Terre Haute, IN 47803
wollowski@rose-hulman.edu
www.rose-hulman.edu/~wollowsk
(812) 877-8650

March 31, 2026

Employment

September 2019 - , Professor of Computer Science and Software Engineering with tenure, Rose-Hulman Institute of Technology, Terre Haute, IN, USA.

2005 - 2019, Associate Professor of Computer Science and Software Engineering with tenure, Rose-Hulman Institute of Technology, Terre Haute, IN, USA.

1999 - 2005, Assistant Professor of Computer Science and Software Engineering, Rose-Hulman Institute of Technology, Terre Haute, IN, USA.

1995 - 1999, Visiting Assistant Professor of Computer Science, Siena College, Loudonville, NY, USA.

Education

Indiana University, Bloomington, Computer Science, Philosophy Minor, **M.S. & Ph.D.**

Universität Hamburg, Computer Science, Economics and Business minor, **Vordiplom**

Publications

Refereed:

Note: An asterisks after my name indicates that I gave the presentation of the paper at the conference indicated.

William Valentine, Michael Wollowski. (2025). Assessment of the Capabilities of Multimodal Large Language Models in Locating and Resolving Ambiguities During Human-Robot Teaming. Proceedings of the 16th International Conference on Applied Human Factors and Ergonomics and the Affiliated Conferences. Open Access Science in Human Factors Engineering and Human Centered Computing. Issue 195.

Luke Baker, Michael Wollowski. (2025) The Performance of ChatGPT for Developing and Testing Code for College-level Data Structures Courses. Poster presented at the Rose Spring Research Symposium, May 21, 2025.

- William Valentine, Michael Wollowski. (2025). Assessment of the Capabilities of Multimodal Large Language Models in Locating and Resolving Ambiguities During Human-Robot Teaming. Poster, presented at the Rose Spring Research Symposium, May 21, 2025.
- Michael Wollowski*. (2025) *Towards an AI Course Based on Neural Networks*. Proceedings of the 39th Annual AAAI Conference on Artificial Intelligence. AAAI Press. Presented at the 15th Symposium on Educational Advances in Artificial Intelligence, EAAI-25.
- Michael Wollowski. (2025). *Attracting artificial intelligence talent in the time of generative AI*. AI Magazine. Vol. 46. Issue 2.
- Michael Wollowski (2025). *Towards a New Foundation for AI*. In: *Interdependent Human-Machine Teams* Editors: Ranjeev Mittu, Donald Sofge and W.F. Lawless. Elsevier Publishing Company.
- Michael Wollowski (2023). *Using ChatGPT to produce code for a typical college-level assignment* AI Magazine Vol. 44, No 1. Wiley.
- Michael Wollowski. (2021) *Engagement During Pandemic Teaching - Report of the EAAI-21 Panel on Teaching Online and Blended AI Courses*. AI Magazine. Vol. 42, No 3: Fall 2021. Wiley.
- Michael Wollowski, Lilin Chen, Xiangnan Chen, Yifan Cui, Joseph Knierman, Xusheng Liu. (2021). *Engineering Context from the Ground Up*. In: *Systems Engineering and Artificial Intelligence*. Eds.: William F. Lawless, Ranjeev Mittu and Donald A. Sofge. Springer Verlag.
- Michael Wollowski, Michael Crowell, Devon Dong, Walt Panfil, Adit Suvarna. (2020). *Shared Context in Human Robot Collaborative Problem Solving with Multi-modal Input*. In: *Artificial Intelligence (AI), Autonomous Machines and Human Awareness: User Intervention, Intuition and Mutually Constructed Context*. Editors: Ranjeev Mittu, Donald Sofge, Ira S. Moskowitz, Stephen Russell and W.F. Lawless. Elsevier Publishing Company.
- Michael Wollowski, Michael Crowell, Devon Dong, Walt Panfil, Adit Suvarna. (2020). *Shared Context in Human Robot Collaborative Problem Solving with Multi-modal Input*. In: *Artificial Intelligence (AI), Autonomous Machines and Human Awareness: User Intervention, Intuition and Mutually Constructed Context*. Editors: Ranjeev Mittu, Donald Sofge, Ira S. Moskowitz, Stephen Russell and W.F. Lawless. Elsevier Publishing Company.
- Michael Wollowski*, Michael Crowell, Devon Dong, Walt Panfil, Adit Suvarna. (2019). *Shared Context in Human Robot Collaborative Problem Solving with Multi-modal Input*. In: Technical Report of the 2019 AAAI Spring Symposium on "Artificial Intelligence (AI), Autonomous Machines and Human Awareness: User Intervention, Intuition and Mutually Constructed Context."
- Michael Wollowski*, Oscar Youngquist. (2019). *Abstract: A Gentle Introduction to the Backpropagation Algorithm and Feedforward Networks*. Abstract: Proceedings of EAAI-19 Symposium. AAAI Press. Assignment: <http://modelai.gettysburg.edu/>
- Michael Wollowski, John McDonald. (2019). *The Web of Smart Entities - Aspects of a Theory of the Next Generation of the Internet of Things*. In: *Artificial Intelligence for the Internet of Everything*. Editors: Ranjeev Mittu, Donald Sofge, Ira S. Moskowitz, Stephen Russell and W.F. Lawless. Elsevier Publishing Company.
- Michael Wollowski*, John McDonald, Vishal Kapashi, Ben Chodroff. (2018). *The Web of Smart Entities - Towards a Theory of the Next Generation of the Internet of Things*. In: Technical Report of the 2018 AAAI Spring Symposium on "Artificial Intelligence for the Internet of Everything."
- Michael Wollowski*, Carlotta Berry, Ryder Winck, Alan Jern, David Voltmer, Alan Chiu, Yosi Shibberu. (2017). *A Data-driven Approach Towards Human-robot Collaborative Problem Solving in a Shared Space*. Presented at 2017 AAAI Fall Symposium on Natural Communication for Human-Robot Collaboration. In: <https://arxiv.org/abs/1710.00274>

- Michael Wollowski, Todd Neller, James Boerkoel. (2017). *Artificial Intelligence Education: Editorial Introduction*. In: AI Magazine, Summer 2017, Vol 38, No 2. Publisher: AAAI Press.
- Doug Fisher, Charles Isbell, Michael L. Littman, Michael Wollowski, Todd W. Neller, Jim Boerkoel. (2017). *Ask Me Anything about MOOCs*. In: AI Magazine, Summer 2017, Vol 38, No 2. Publisher: AAAI Press.
- Lawrence S. Moss, Michael Wollowski*. (2017). *Natural Logic in AI and Cognitive Science*. In: Proceedings of the 28th Modern Artificial Intelligence and Cognitive Science Conference.
- Michael Wollowski*. (2016b). *Studying Watson Inside Out - A Cognitive Systems Course*. In: Proceedings of the Twenty-Ninth International Flairs Conference. Publisher: AAAI Press.
- Michael Wollowski*. (2016a). *Training Watson - a cognitive systems course. (extended abstract)* In: Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence. Publisher: AAAI Press.
- Michael Wollowski*, Robert Selkowitz, Laura E. Brown, Ashok Goel, George Luger, Jim Marshall, Andrew Neel, Todd Neller, Peter Norvig. (2016). *A survey of current practice and teaching of AI*. In: Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence. Publisher: AAAI Press.
- Michael Wollowski*. (2014). *Teaching with Watson*. In: Proceedings of the Twenty-Eighth AAAI Conference on Artificial Intelligence. Publisher: AAAI Press.
- Peter Brusilovsky, Stephen Edwards, Amruth Kumar, Lauri Malmi, Luciana Benotti, Duane Buck, Petri Ihantola, Rikki Prince, Teemu Sirki, Sergey Sosnovsky, Jaime Urquiza, Arto Vihavainen, Michael Wollowski. (2014). *Increasing Adoption of Smart Learning Content for Computer Science Education*. In: Proceedings of the Working Group Reports of the 2014 Innovation & Technology in Computer Science Education Conference, pp. 31-57.
- Renee D. Rogge, Glen A. Livesay, Jameel Ahmed, William A. Kline, Robert M. Bunch, Zac Chambers, Michael Wollowski. (2014). *The Innovation Canvas as a Teaching Tool in Capstone Design: A Reverse-Engineering Case Study*. In: Proceedings of the 2014 ASEE Annual Conference & Exposition. Publisher: ASEE.
- Jameel Ahmed, Renee D. Rogge, William A. Kline, Robert M. Bunch, Thomas W. Mason, Michael Wollowski, Glen A. Livesay. (2014). *The Innovation Canvas: An Instructor's Guide*. In: Proceedings of the 2014 ASEE Annual Conference & Exposition. Publisher: ASEE. This paper received honorable mention for the "Best New Idea" award.
- Michael Wollowski, Kevin Ridsen. (2011). *Knowledge Servers for the Classroom*. in: Proceedings of the 2011 Frontiers in Education conference. Rapid City, SD.
- Michael Wollowski*, JP Verkamp. (2010). *Effects of Game Tournaments on Learning and Classroom Climate*. in: Proceedings of the 23rd International FLAIRS Conference, Daytona Beach, FL.
- Cary Laxer, Mats Daniels, Asa Cajander, Michael Wollowski. (2009). *Evolution of an International Collaborative Student Project*. in: Proceedings of the ACE 2009 Conference, Wellington, New Zealand, pp 111-118. This paper received a "Best Paper" award.
- Michael Wollowski*. (2008). *From Foundations to Current Work in a One Quarter Course on Artificial Intelligence*. in: Proceedings of the 21st International FLAIRS Conference, Coconut Grove, FL, pp 245-249.
- Michael Wollowski*. (2006). *A Theorem Prover for a Diagrammatic Blocks World*. in: Proceedings of the 2006 Midwest Artificial Intelligence and Cognitive Science Conference, Valparaiso, IN, pp 43-47.
- Michael Wollowski*. (2005). *Search and Inference with Diagrams*. in: Proceedings of The Ninth IASTED International Conference on Internet and Multimedia Systems and Applications, Honolulu, HI, pp 147-141.

- Michael Wollowski*. (2004). *Living in a Transparent Future: Search in a Wired World*. in: Proceedings of the World Wide Web @ 10 Conference, Terre Haute, IN, <http://www10.cs.rose-hulman.edu/Papers/Wollowski.pdf>.
- Michael Wollowski*, Peter Nei, Chris Barrell. (2004). *A Diagrammatic Inference System for the Web. (extended abstract)* in: Proceedings of The Thirteenth International World Wide Web Conference, Alternate Track Papers and Posters, New York, pp 374-375.
- Michael Wollowski*. (2003). *An XML-Based Syllabus Editor and Search Engine*. in: Proceedings of the Stop Surfing - Start Teaching 2003 National Conference, Las Vegas, pp 107-111.
- Lawrence Goldberg, Eric Jolly, J.P. Mellor, Babette Moeller, Madeleine Rothberg, Richard Stamper, Michael Wollowski. (2002). *Teaching Diversity Through Inclusive Design Case Studies. (extended abstract)* in: Proceedings of the FIE 2002 Conference. Boston, p S1C-15.
- Michael Wollowski*. (2002). *XML Based Course Websites*. in: Proceedings of the E-Learn 2002 Conference, Montreal, pp 1043 - 1048.
- Michael Wollowski*. (2001). *An Undergraduate Research Course Aimed at Furthering the Web*. in: Proceedings of the 2001 Frontiers in Education Conference. Reno, NV.
- Scott Vandenberg, Michael Wollowski. (2000). *Introducing Computer Science Using A Breadth-First Approach and Functional Programming*. in: Proceedings of the ACM SIGCSE 2000 Technical Conference. Austin, TX.
- Scott Vandenberg, Michael Wollowski*. (1999). *Software Support For Introducing Computer Science*. in: Proceedings of the 1999 Computers on Campus Conference. Columbia, SC.
- Michael Wollowski, Eric Hammer. (1998). *Heterogeneous Systems for Modeling Dynamic Worlds*. in: *Dynamic Worlds - From the Frame Problem to Knowledge Management*, edited by Remo Pareschi and Bertram Fronhöfer, Kluwer Academic Publishers.
- Phillip Bradford, Michael Wollowski. (1995). *A Formalization of the Turing Test*. in: SIGART Bulletin, Vol. 6, No. 4,.
- Michael Wollowski*. (1994). *Case-Based Reasoning as a Means to Overcome the Frame Problem*. in: Proceedings of the Seventh Florida Artificial Intelligence Research Symposium.
- Phillip Bradford, Michael Wollowski. (1993). *A Formalization of the Turing Test. (extended abstract)* in: Proceedings of the Fifth Midwest Artificial Intelligence and Cognitive Science Conference, Editor: T.E. Ahlswede.
- Michael Wollowski*. (1989). *A Scheme for an Integrated Learning System*. in: Proceedings of the Sixth International Workshop on Machine Learning, Editor: A.M. Segre, Morgan Kaufmann Publishers, San Mateo, CA.

Not refereed:

- Sheila McIlraith, Kilian Weinberger, Karen Myers, Eric Eaton, Michael Wollowski, G. Michael Youngblood. (2018). *A Recap of the AAAI / IAAI 2018 Conferences and the EAAI Symposium*. In: AI Magazine. Winter 2018.
- Eric Eaton, Michael Wollowski. (2018). *EAAI-18 Preface*. In: Proceedings of the 2018 AAAI Conference. AAAI Press.
- Carlotta Berry, Alan Chiu, Alan Jern, Yosi Shibberu, David Voltmer, Ryder Winck, Michael Wollowski. (2017). *Team Rose-Hulman: Making Robots Accessible to Everyone*. 2017 Progress report to IBM AI XPrize competition.

- Michael Wollowski. (2016). Review of: "How IoT is Made: Victim or Victor?" by John McDonald and James Pietrocarlo. Review was turned into a blurb which was published on the back cover of that book: <https://www.amazon.com/How-IoT-Made-Victim-Victor/dp/1517161991>
- Michael Wollowski. (2005). Review of: "Pitfalls of OWL-S: a practical semantic Web use case" by Balzer S., Liebig T., Wagner M. in: Proceedings of the 2nd International Conference on Service Oriented Computing, New York, NY, USA, Nov 15-19, 2004. Review published on Feb 17, 2005; in: reviews.com.
- Michael Wollowski. (2004). Review of "Modeling and clustering of photo capture streams" by Gargi U. in: Proceedings of the 5th ACM SIGMM International Workshop on Multimedia Information Retrieval, Berkeley, California, Nov 7, 2003:47-54, 2003. Review published on Sep 30 2004 at reviews.com.
- Michael Wollowski. (2003). Review of "Triantafillou, Pomportsis, and Demetriadis. The Design and the Formative Evaluation of an Adaptive Educational System Based on Cognitive Styles." Review published on December 1, 2003, in: <http://www.reviews.com>.
- Michael Wollowski. (2003). Review of "Information technology in construction: how to realise the benefits?" Koskela L., Kazi A. In Socio-technical and human cognition elements of information systems Idea Group Publishing, Hershey, PA, 2003. ACM Computing Reviews, October 2003, p 668.
- Phillip Bradford and Michael Wollowski. (1994). *A Formalization of the Turing Test*. Techreport No. 399, Indiana University 1994.
- Michael Wollowski. (1990). *Learning ICI-Rules through Reporting Differences*. Reports of the Machine Learning and Inference Laboratory, MLI 90-3, School of Information Technology and Engineering, George Mason University, Fairfax, VA, January 1990.

Not refereed, non-technical:

- Michael Wollowski. (2006). *A metal daisy*. Newsletter of the Indiana Blacksmithing Association. Nov. 2006.
- Michael Wollowski. (2008). *The Weathervane in the First Statehouse, Corydon, Indiana USA*. Newsletter of the Indiana Blacksmithing Association. Sep. 2008.
- Michael Wollowski. (2009). *Reproducing the Sconce from the Church in Eichede*. Newsletter of the Indiana Blacksmithing Association. April 2009.
- Michael Wollowski. (2009). *Get it Together*. Newsletter of the Indiana Blacksmithing Association. Feb. 2009.
- Michael Wollowski. (2009/10). *A 3D Snowflake*. Newsletter of the Indiana Blacksmithing Association. Dec. 2009. The article was reprinted in the November/December 2010 issue of the BAM newsletter as well as the November 2011 issue of the Central States Metal Artisans newsletter.
- Michael Wollowski. (2009/10). *Jim Claar, Toolmaker*. Newsletter of the Indiana Blacksmithing Association. Jan. 2010. ABANA Hammer's Blow, Fall 2009. An excerpt of this article, translated into German, was published in the Nov/Dec 2009 issue of Hephaistos magazine, a European metalworker magazine.
- Michael Wollowski. (2011). *Construction notes on building the Jim Claar anvil vise*. Newsletter of the Indiana Blacksmithing Association. Jan. 2011.
- Michael Wollowski. (2011/12). *Construction notes on building the Patrick Pelgrom tongs*. Newsletter of the Indiana Blacksmithing Association. May 2011. This article was reprinted in the Sep/Oct 2011 Bituminous Bits. A version translated into German was published in the Jan/Feb 2012 issue of Hephaistos magazine.
- Michael Wollowski. (2012). *Construction notes on forging a butterfly*. Newsletter of the Indiana Blacksmithing Association. Mar. 2012.

- Michael Wollowski. (2012). *Construction notes on an innovative Vise Jaw Spacer*. Newsletter of the Indiana Blacksmithing Association. Jun. 2012. Bituminous Bits newsletter. March/April 2012.
- Michael Wollowski. (2012). *Construction notes on a fairly universal set of tongs*. Newsletter of the Indiana Blacksmithing Association. Jul. 2012. Bituminous Bits newsletter. May/June 2012 Aversion translated into German was published in the Nov./Dec. 2012 issue of Hephaistos magazine.
- Michael Wollowski and Kenneth Dettmer. (2012). *Construction notes on building the Ken Dettmer forge*. A two-part article. Newsletter of the Indiana Blacksmithing Association. Sep. 2012 & Oct. 2012. Bituminous Bits newsletter. Sep. 2012 & Oct. 2012.
- Michael Wollowski. (2013). *Construction notes on modifying V-bit tongs so that they can easily pick-up materials off the floor*. Newsletter of the Indiana Blacksmithing Association. Jan. 2013.
- Michael Wollowski. (2013). *Construction notes on tongs as seen in a wood-cut from 1597*. Newsletter of the Indiana Blacksmithing Association. May. 2013. A German translation of this article appeared in the May/June 2013 issue of Hephaistos magazine.
- Michael Wollowski. (2013). *Jim Claar's new 1500lbs powerhammer*. Newsletter of the Indiana Blacksmithing Association. Dec. 2013.
- Michael Wollowski. (2014). *In memory of Don Neuenschwander*. Newsletter of the Indiana Blacksmithing Association. Jan. 2014.
- Michael Wollowski. (2014). *A forged chandelier*. Newsletter of the Indiana Blacksmithing Association. Jun./Jul. 2014. A write-up and several photos were published in the June/July 2015 issue of Hephaistos magazine.

Presentations

- Michael Wollowski. *The Brains of Large Language Models*. Rose-Hulman Institute of Technology. March 18, 2026,
- Michael Wollowski. *Will AI kill our children?*. Rose-Hulman Institute of Technology. January 7, 2026.
- Michael Wollowski. *AI has reached the level of a competent collaborator*. Rose-Hulman Institute of Technology. October 29,, 2025.
- Michael Wollowski. *What Should Every Graduate Know about AI?*. Rose-Hulman Institute of Technology. October 1, 2025.
- Michael Wollowski. *AI Considered a Different Kind of Intelligence*. Presented at the 16th International Conference on Applied Human Factors and Ergonomics and the Affiliated Conferences. Summer 2025.
- Michael Wollowski. *Generative AI: Understanding Its Power and Implications*. Vigo County Public Library. May 6, 2025.
- Michael Wollowski. St. Mary of the Woods College. Keynote address at their opening of the year symposium. *AI: Quo vadis?*. August 12, 2024.
- Michael Wollowski. Avenue for Success Program (for students.) *Grabbing the Tiger by The Tail: The Power and Likely Future of AI*. St. Mary of the Woods College. April 16, 2024,
- Michael Wollowski. Sabbatical Talk. *Grabbing the Tiger by The Tail: The Power and Likely Future of AI*. Rose-Hulman Institute of Technology. March 14, 2024,
- Michael Wollowski. *Unleashing the Future. The Power of AI*. Vigo County Public Library. February 4, 2024.
- Michael Wollowski. *Are NN the new AI?*. Indiana University. October 11, 2023.

- Michael Wollowski. *Self-driving cars: Why we Need them and How to Make them Fun*. Rose-Hulman sabbatical talk, Fall 2017.
- Michael Wollowski. *IBM Watson - An Engineering Marvel*. Institute for Telematics, in Luebeck, Germany. January 17, 2017.
- Michael Wollowski. *The Next Generation of the IoT*. Presentation as part of "Big Data as a Strategic Priority" seminar, organized by RHIT Engineering Management Graduate Studies Program. October 14, 2016.
- Michael Wollowski. *Interview about privacy aspects of the IoT*. Interview given as part of the 2016 IndyIoT day. <https://www.youtube.com/watch?v=WNS7EGZ78Pw>
- Michael Wollowski. *How the Internet of Things Might Shape Transportation*. Rose-Hulman Lightning talk, Spring 2016 and CloudOne Lunch-n-Learn, Fall 2016.
- Michael Wollowski. *People Logistics*. CloudOne Lunch-n-Learn, Fall 2016.
- Michael Wollowski. *Artificial Intelligence*. Opening Symposium of the 2016 RHIT Summer Innovation Workshop.
- Michael Wollowski. *The Innovation Canvas: A tool to design products and business models*. IBM Cognitive Systems Institute Group Speaker Series. This is an online presentation series run by Jim Spohrer, Director of IBM University Programs and Cognitive Systems Institute. March 5, 2015.
- Michael Wollowski. *Towards a Theory of Swarm Intelligence*. Colloquium at the University of Kiel, Germany. 2007.
- Presentation in Julia William's workshop on *Communication Assignments for Technical Courses*. which was held in the Quality of Education Workshop series at Rose-Hulman Institute of Technology. Winter 2003/4.
- Michael Wollowski, Robert Signorelli. Presentation of our work entitled *Towards a General-Purpose Search Engine* at the 2003 Search Engine Meeting, Boston. April 2003.
- Workshop *Creating Effective Web Pages* for staff and faculty as part of the Quality of Education Workshop series at Rose-Hulman Institute of Technology. Spring 2001/2:
- Workshop *Web Design* for students as part of the New Residence Hall Lecture Series at Rose-Hulman Institute of Technology. Spring 2001/2.
- Invited presentation for the "Beat the Winter Blues" series of the Learning Center at Rose-Hulman Institute of Technology entitled: *My first Web-page*. January 2000.
- Invited workshop. Title: *Building my first Web-page*. This was a follow-up on the presentation listed subsequently. January 2000.
- Invited presentation to the Siena College Family Business Institute. Topic: *The World-Wide Web as a Business Tool*, March 1997.
- Invited presentation to the Philosophy student club at Siena College. Topic: *Honest Politicians and Artificial Intelligence*, November 1996.
- Presentation of a poster entitled *Reasoning with Diagrams* at the 1993 Student Poster Competition of the ACM Computer Science Conference, Indianapolis, IN.

Creative Work

Michael Wollowski, Robert Signorelli, and Chris Barrell. Development of the following invention: *A Method and System for User Initiated Repeat Purchases via the Internet*. Abstract. A method and system for user initiated repeat purchases via the internet is provided. A user opens a dedicated client to instantly order goods as specified by their preferences. The client sends a unique identifier to a server where the associated account(s) is retrieved. Once successfully identified, the user's purchase preferences and delivery/billing information are accessed from their account which is located on the server. Based on the preferences, goods and services are provided for the user and their account is automatically charged. All of this occurs with zero interaction from the user outside of opening the client (most commonly a web site). Publication of invention on the IP.com Prior Art Database (IPCOM000030927D), September 1, 2004. It is basically a zero-click method for ordering goods, something that has since been implemented through Amazon.com's "Dash Buttons."

Spring 2001: Supervised a student project to integrate informational web-services from several sites of Rose-Hulman Institute of Technology web-site into one, including telephone number, address, picture and schedule look-up. In the process of this consolidation, we addressed confidentiality issues. The system was used by RHIT for a time. This system was the Rose-Hulman equivalent of Facebook. Notice that we beat Harvard by three years.

Spring 2000: Supervised a student project to wire a soda machine to the internet, enabling soda purchase through a dedicated web-site. This project received wide-spread newspaper coverage in the mid-west and was covered as far away as Myrtle Beach, SC and Phoenix, AZ. It was mentioned in the 2001 US News and World Report College Guide. The project also received local TV coverage. For a while, we had one of only ten web-based soda machines. Eventually, we added some fairly sophisticated authentication tools (iButton) and ways of adding funds (PayPal).

Conferences, Symposia, Workshops attended

These are events at which I did not present.

INDY IoT Event. Indianapolis, IN. 2015, 2016.

DARPA WaitWhat? Future Technologies Forum. St. Louis, MO. Sept. 9 -11, 2015.

The Innovation Showcase. Venture Club of Indiana. Indianapolis, IN. July 9, 2015.

Internet of Things (IOT) Bootcamp. IBM Chicago, IL. June 9, 2015 in Chicago.

Informational Technology in Computer Science Education (ITiCSE) 2014 conference. Uppsala, Sweden. 2014.

Big Data Developer Day. IBM Indianapolis, IN. April 30, 2014.

Smarter Analytics - Information Management and Big Data. IBM Academic Initiative Smarter Planet - Teach the Teacher (T3) Training. Chicago, IL. August 14, 2013.

Summer Innovation Workshop. Rose-Hulman Institute of Technology. Terre Haute, IN. 2013, 2014, 2016.

2011 AAAI conference. San Francisco, CA. August 7-11, 2011.

MLeXAI: Machine Learning Experiences in AI: A Multi-Institutional Project. An invitation only, NSF sponsored workshop. Colocated with the Florida AI Research Symposium. Sanibel Island, FL. May 18, 2009.

4th European Semantic Web Conference. Innsbruck, Austria. 2007.

Where does it hurt? IRPA Teaching Clinic. Rose-Hulman Institute of Technology. Terre Haute, IN. Sep. 13th, 2006.

Frontiers in Education Conference. Indianapolis, IN. Oct. 19-22, 2005.

Teaching and Learning with Technology Conference. Purdue University. West Lafayette, IN. 2005, 2006, 2008.

Informatics: Defining the Research Agenda Conference. Indiana University. Bloomington, IN. Sep 10 - 12, 2005.

High Standards, Hard Work, and Course Evaluation Scores - Are they Related? Center for Excellence in Teaching Forum. Rose-Hulman Institute of Technology. Terre Haute, IN. March 23, 2004.

2002 Search Engine Meeting. San Francisco, CA. April 15-16, 2002.

Senior Theses Supervised

(2025/26) Medhansh Khattar. Minimal Signaling for Mediated Coordination in Multi-Agent LLM Systems

(2025/26) Dominic Reilly. Engineering Better Education: A Study of Critique Loops in AI Curriculum Design

(2024/25) Adam Field. Shifting Perspectives: Uncertainty Prediction for Vision-Language Models via Image Transformations.

(2024/25) Edward Kim. Cognitive Empathy as a Defense against Persistent Backdoors in Reasoning Models.

(2022/23) Markus Luethje: Trust-based Task Allocation in Human-Robot Systems with two Actors

(2022/23) Elliya Sorenson: Perception and Control of Decentralized Swarm Agents for Search and Rescue Site Mapping.

(2021/22) Nils Engleder: Faster and Accessible Human Robot Collaboration Research using XR Technology.

(2020/21) Vanshika Reddy: An Emotionally Aware Dialogue system with Memory.

(2020/21) Brionna Slaughter: Handwritten Authorship Attribution Using Both Image Recognition and Natural Language Processing Techniques. Brionna's thesis won the Michael Atkins Outstanding Senior Thesis award.

(2019/20) Oscar Youngquist: Paralinguistic Emotional Analysis With Deep Learning. Oscar's thesis won the Michael Atkins Outstanding Senior Thesis award.

(2019/20) Kevin Liu: Paraphrase Detection With Neural Networks.

(2018/19) Trevor Morton: Multi-agent systems for Deep Q-Learning

(2018/19) Ben Brubaker: Clustering of Music Beyond Genre

(2017/18) Lucas Metzger: End-to-End Module Networks for Multimodal Question Answering

(2017/18) Zhou Zhou: Sentence Summarization Using a Worker-Supervisor Approach

(2015/16) Isaac Sanders: Clustering Algorithms Evaluated on Big Data

(2014/15) Benjamin Coble: Emotional Classification of Text with Shortest Path Metadata Features

(2014/15) Mark Hein: Evolving Softbots using Competition

(2013/14) Julia Chapple: Personalized Website Prediction with Enhanced Markov Chains for Navigation Aid. Thesis contributed to her winning the departmental Frank Young Scholarship Award.

(2012/13) Mary Roth: Knowledge Extraction for Classroom Use

- (2011/12) Stephen Mayhew: Experiments in Improved Methods for Unsupervised Resolution of Relations and Objects. Thesis contributed to him winning the departmental Frank Young Scholarship Award.
- (2011/12) Eric Reed: Multi-Agent AI Music Composition. Thesis contributed to him winning the departmental Frank Young Scholarship Award.
- (2010/11) Mark Jenne: Modeling Cultured Neurobiological Networks
- (2010/11) David McGinnis: A Generalized System for Time Signature Detection.
- (2009/10) Ben Campbell: Hands Free Cursor Control using the Emotic EPOC.
- (2009/10) JP Verkamp: Augmenting n-gram Based Authorship Attribution With Neural Networks. Thesis won the departmental Michael Atkins Outstanding Senior Thesis award. He also won the departmental Frank Young Scholarship Award.
- (2007/8) Adam Outcalt: Cryptanalysis with Artificial Intelligence. Thesis contributed to him winning the departmental Frank Young Scholarship Award.
- (2005/6) Eric Holk: Swarm Intelligent Peer-to-Peer Web Search.
- (2005/6) Aaron Knox: Negotiation Simulation in an Adaptive Multiagent System.
- (2004/5) Perry Evans: RNA Secondary Structure Prediction - A Swarm Intelligence Approach. Thesis won the departmental Michael Atkins Outstanding Senior Thesis award.
- (2003/4) Alex Kutsenok: Swarm AI: A Solution to Soccer. Thesis contributed to him winning the departmental Frank Young Scholarship Award.
- (2002/3) Robert Signorelli: Towards a General Purpose XML Search Engine. Thesis earned the departmental Doc Criss Outstanding Senior Project award, which that year was given to the best thesis instead of the best project.
- (1998) Frank Traina: Summarizing Web-page Contents. This work was presented at the Fifth Annual Hudson River Undergraduate Mathematic Conference, held at Union College on April 18, 1998.

Senior Research Projects Supervised

- (2021/22) Andrea Wynn, Duncan McKee, Bohdan Vakhitov. DDoS Detection Using Machine Learning
- (2021/22) Neelie Shah. Human Robot Interaction and Developing Trust in Robots.
- (2021/22) Zeming (Eric) Chen, Qiyue (Bert) Gao. Human-level Reasoning for Neural Language Models: Tasks, Curriculum, and Learning Paradigms.
- (2020/21) Lilin Chen, Xiangnan Chen, Yifan Cui, Joseph Knierman, Xusheng Liu. Conversational agents and Autonomy in the HRC project.
- (2019/20) Tyler Bath, Sophie Brusniak, Joseph Knierman, Sooyoung Park, Mitchell Schmidt. Shared Context in Human Robot Collaborative Problem Solving with Multi-modal Input.
- (2018/19) Michael Crowell, Devon Dong, Walt Panfil, Adit Suvarna. Engineering anHRC project with Speech and Gesture input.
- (2017/18) Remy Bubulka, James Gibson, Kieran Groble, Lewis Kelley. Data collection and Prototype development of the Rose-Hulman's entry in the IBM Watson AI XPRIZE competition.

Independent work supervised that lead to conference presentations or publications

Summer/Fall 2021. Zeming Chen, Qiyue Gao. *Probing Linguistic Information for Logical Inference in Pre-trained Language Models*.

Winter 2020/Spring 2021: Zeming Chen, Qiyue Gao, Lawrence S. Moss. *NeuralLog: Natural Language Inference with Joint Neural and Logical Reasoning*. *SEM 2021- The 10th Joint Conference on Lexical and Computational Semantics. 2021.

Fall/Winter 2020: Zeming Chen Qiyue Gao. *Monotonicity Marking from Universal Dependency Trees*. The 14th International Conference on Computational Semantics. 2021.

Spring 2020: Eric (Zeming) Chen. *Attentive Tree-structured Network for Monotonicity Reasoning*. Natural Language Meets Machine Learning Workshop. 2020.

Spring 2019, Oscar Youngquist. *An Ensemble Neural Network for the Emotional Classification of Text*. Presented and published at the 2020 FLAIRS conference.

Fall 1998, Christopher Hart and Adam Madkour: *Automated Protein Structure Classification and Backbone Prediction*. [This work was presented at the 5th Annual Hudson River Undergraduate Mathematics Conference, held at Union College on April 18, 1998.]

Spring 1997: Brian Chu, Andrew Lippitt, and James Manico: *Future of the World-Wide Web*. [This work was presented at the Fourth Annual Hudson River Undergraduate Mathematic Conference, held at Williams College on April 12, 1997.]

Spring 1996: James Manico: *Introductory AI with PROLOG*. [This work was presented at the Third Annual Hudson River Undergraduate Mathematic Conference, held at Skidmore College on April 20, 1996.]

Funding received

2025/26: I am a co-PI on an NSF grant "NAIRR Pilot Expansion for four-year (non-doctoral) institutions."

2025/26: I am on the advisory board of the NSF funded grant "CUE-M: LEVEL-UP AI: Developing Strategies to Increase Capacity and Inclusion in AI Education.?"

2018: AAAI to attend EAAI-18. We obtained funding for participants that would not be eligible for NSF funding. (\$6,600).

2017: *Extended Reasoning in Natural Language Systems*. Rose-Hulman Institute of Technology, Dean's summer professional development grant. This work extended the work of (Moss and Wollowski, 2017). (\$5,000).

2015 KEEN course development grant. The grant was used to adapt my "Cognitive Computing" course so as to better integrate teaching an entrepreneurial mindset. This work resulted in an extended abstract and a paper (Wollowski, 2016a, 2016b). (\$7,000)

2010: *Textbook of the Future*. Rose-Hulman Institute of Technology, Dean's summer professional development grant. This work is about setting up what we call "knowledge servers" for the classroom. Basically, such a server provides a graph based interface to key concepts of a course, showing how they are related. It also provides links to course materials. Our aim was to provide a simple search interface that would show how a concept is related to other concepts covered in a course. This is in contrast to how course contents are typically presented, i.e. in a static schedule page in which information is listed in order in which it is covered. The work resulted in the (Wollowski and Ridsen, 2011) paper. (\$5,000)

2000-2003: Co-wrote an NSF grant proposal on Inclusive Design. This grant was aimed at developing case studies for classroom use. The case studies are designed to sensitize students to the needs of people with different abilities. This grant was written in cooperation with WGBH (Boston), the Education Development Center (NYC) and members of the Computer Science and Mechanical Engineering Departments here at RHIT. The grant was funded. We began the research on it and held one meeting in Boston. We developed a questionnaire to interview designers of talking Automated Teller Machines. We interviewed designers, users, and managers involved in developing, using, and making decisions about talking ATMs, so as to build a case study to be used in select courses here at Rose. This work resulted in the (Goldberg et.al, 2002) extended abstract.

Professional Experience

July 2016 - October 2016. Sabbatical at CloudOne, now ClearObject in Fishers, IN. Researched likely developments of Internet of Things (IoT), wrote academic papers, gave in-house presentations.

August 1988 - December 1989. Participated in a project to design and implement an expert system for Agroforestry. This was a joint project between George Mason University and the University of Florida, conducted by researchers from the departments of Decision Sciences, Agroforestry, and Computer Science.

May 85 - June 87. Assistant operator in the super computing center of the *Max Planck Institute for Meteorology*, Germany. Duties included the scheduling of jobs on a CDC Cyber 205 supercomputer and operating and maintaining various storage and output devices.

May 1983 - September 1983. Sample Institute for Market Research, Germany. After doing an excellent job stuffing envelopes, was promoted to generating reports summarizing the results of questionnaires. This included writing programs in a statistical programming language.

Professional Service

Associate Editor, AI Magazine (since January 2021)

AI Education Column Editor, AI Magazine (since January 2019)

Co-chair: 2018 and 2019 EAAI symposium.

Organizing committee member: 2016 EAAI symposium.

PC member: 2011, 2012 and 2013 EAAI symposium.

Reviewer: 2006, 2007 and 2011 Frontiers in Education (FIE) conferences.

Reviewer: *Computing Reviews*: 2003-2005.

Membership in Professional Organizations

Indiana Alpha Chapter of Upsilon Pi Epsilon (UPE) honor society

ACM Special Interest Group on Computer Science Education (SIG-CSE)

ACM Special Interest Group on Artificial Intelligence (SIG-AI)

Association for Advancement of Artificial Intelligence (AAAI)

Teaching

Variety

I taught 20 different courses while at Rose-Hulman, not including directed independent study and senior thesis courses. Courses I taught include CS 1&2 courses, data structures, programming languages concepts, compilers, theory of computation, artificial intelligence, advanced AI courses related to swarm intelligence and cognitive computing, courses related to the world-wide web and seminars on big data and exponential technologies. Courses in which I shine include data structures, programming language concepts, artificial intelligence and a seminar on swarm intelligence, designed to introduce students to the research process.

Enthusiasm

I display a lot of enthusiasm in my teaching, something that was noted by a former dean. In his comments for my course evaluations for a CS1 course, he writes: "Your enthusiastic teaching style carried the day." An alumnus took the effort to send me an unsolicited email, thanking me for my teaching. In it, he writes "I enjoyed your open and inquisitive approach to assignments/projects." A student in my programming languages course wrote: "Had several teachers who were excited to teach their subject but none was as excited as Michael is for PLC." This is not an isolated comment. As a matter of fact, my enthusiasm for the course materials is a recurring theme and they are almost always above the institute average.

Curiosity

What my students regularly describe as "enthusiasm" in my course evaluations, is partially a manifestation of my curiosity for the subject areas I teach. I am genuinely curious and aim to learn new things every time I teach a course. To me, curiosity is a prerequisite to performing research and I am trying to reawaken and foster my students' natural curiosity. Below are some of the ways I foster curiosity:

- In the Myths Busters component of my data structures course, we investigate the veracity of claims about the runtime of algorithms, some of which are made in textbooks.
- In my artificial intelligence, I ask my students to present on a cutting-edge project of their choosing.
- In my AI course, we read papers and discuss the issues raised by them that question whether AI is possible and how one might be able to tell.
- Also in AI, I encourage my students to send me links to interesting articles about AI. If relevant, I will show them at the beginning of class and we will have a quick discussion on the issue raised.

To me, curiosity is a prerequisite to performing research and I am trying to reawaken and foster my students' natural curiosity. My curiosity is not limited to the classroom. I am a hobby blacksmith. A while ago, I saw a pair of tongs in a somewhat crude woodcut dating back to 1597. Assuming that blacksmiths during those days had a rather limited supply of tongs, I was curious about the usefulness of the tongs. As such, I rebuilt them. This was a process of drawing what I think I saw in the image, smithing a prototype pair of tongs, comparing it to the image, modifying my drawings and starting over again. I eventually wrote up my experience and measured drawings of the tongs in a paper that was published in the newsletter of the Indiana Blacksmithing Association as well as, translated into German, in a very influential blacksmithing magazine, called Hephaistos.

Real-world Problem Solving in the Classroom

IBM Great Mind Challenge. During the 2013 offering of my AI course, my students and I had the opportunity to participate in the IBM Competition entitled "The Great Mind Challenge Watson Edition 2013". The competition gave me and my students access to information about the technology behind Watson, the software that out-performed Ken Jennings and Brad Rutter in a Jeopardy exhibition match. It also gave us insight in IBM's planned uses of this technology. I had to significantly revise my AI course to accommodate this month-long challenge, but that was something I gladly did for such an amazing opportunity. Basically, the competition was about determining whether IBM used the correct training algorithm for the final component of Watson, the one that combines evidence from all the other, roughly 200 components. In their paper about this component, IBM mentioned that they were not sure whether they picked the best algorithm

and they discussed a few options. I set up this component of my course so that the teams' standing in the IBM competition had absolutely no bearing on their grade. I did this to encourage experimentation on my students' part, in particular, to avoid that each team uses the approach used by IBM. My students did not disappoint. While it was satisfying to see that one of our teams placed 1st and another placed 3rd, to me, the real accomplishment of the participation in the competition was that we did real science. Through evaluating the 11 to 12 approaches we used, we were able to determine that IBM indeed chose the best approach.

Web-based Soda Machine. I supervised and assisted in a course project in which a group of four students wired a Soda Machine to the WWW. For a while, this was one of only ten web-based soda machines. It was a machine from which one could purchase soda through a web-site. Eventually, we added some fairly sophisticated authentication tools (iButton) and ways of adding funds (PayPal). The machine garnered some local and national media attention.

RHINO. This project originated from a course project that consolidated several informational RHIT web-sites, such as telephone number look-up, address look-up, picture look-up and schedule look-up. In the process of this consolidation, we addressed confidentiality issues. The Technical Services Center, now EIT, integrated the web-site developed by the students, called RHINO, into the RHIT website. I would like to remark that RHINO was developed in 2001 and was the Rose-Hulman equivalent of Facebook. Notice that we beat Harvard by three years.

Cognitive Computing Course. During 2014/15, I developed an advanced AI course entitled "Cognitive Computing". This is a course at the cutting edge of technology. It gave us access to cutting-edge software, a video course about the inner workings of IBM Watson and access to an IBM employee who was versed in the use of the software. We had weekly phone conversations, during which I attempted to determine the pragmatics of using the software. This was non-trivial. While IBM provided a good amount of support, there are no textbooks or model courses from which one may gain insight. My students and I had a good time with the course though.

Providing Research Opportunities for our Students

I offer my students many opportunities to get exposed and involved in the research process. This includes the following activities:

- *Publications with Students.* I have published papers with several students (Wollowski, Nei and Barrell, 2004, Wollowski and Verkamp, 2010, Wollowski and Risdien, 2011, Wollowski and Youngquist, 2019, Wollowski, Crowell, Dong, Panfil, Suvarna, 2019, Wollowski, Bath, Crowell, Dong, Knierman, Panfil, Park, Schmidt, Suvarna, 2020, Wollowski, Chen, Xiangnan Chen, Yifan Cui, Joseph Knierman, Liu, 2021), presented at a prestigious conference with a sixth (Wollowski and Signorelli, 2003) and developed intellectual property with two more students (Wollowski, Signorelli and Barrell, 2004).
- *Senior Thesis Advising.* I supervised 25 senior thesis students since coming to Rose-Hulman. I advised one at Siena College and am currently advising another thesis.
- *Senior Research Projects Supervised.* Since 2017, I have been advising senior research projects. They are projects that focus on solving a research problem that is such that it requires a team effort. Typically, a project consists of four students. I have had a total of 21 students in these projects.
- *Managing the Senior Thesis and Senior Research Project process.* I have been the senior thesis organizer for at least a decade. During the 2020/21 AY, I was chair of a departmental committee that was concerned with better managing the way we introduce our students to research. I was instrumental in developing a 1cr course (Research lab) to introduce students to the research process, research opportunities and all-things grad school. In this course, we also ask senior thesis and research project students to give an in-depth presentation on the status of their work and to receive more in-depth feedback. A colleague and I developed review instructions for peer-reviews to be performed by the senior thesis and research project students.

- *Directed Independent Study and Undergraduate Research in Computer Science.* Throughout the years, I offered 38 students research opportunities in the form of "Undergraduate Research in Computer Science" or "Directed Independent Studies" courses.
- *Special Topics Seminars.* During the 2013/14 Spring term, together with Drs. Shibberu and Schumacher, I co-taught a one credit hour seminar on "Big Data." This was an opportunity for our students to learn about a contemporary topic of much interest. During the 2016/17 Spring term, together with Drs. Shibberu, Berry and Chambers, I co-taught a seminar on "Exponential Technologies." I gave two presentations, one on "Artificial Intelligence" and one on the "Internet of Things." Both were well received.
- *Seminar on Swarm Intelligence.* I used to teach a course on Swarm Intelligence that is designed for my students to learn key components of the research process, including: (i) comprehending and presenting research papers, (ii) formulating and refining a research project which advances a chosen field, (iii) making progress on the proposed project and (iv) presenting one's own work. I conduct this course in the form of a graduate seminar. To quote a student from the 04/05 offering, "Great class for me, really interested in research, class introduced me to research process, made me feel I was contributing to the field, liked that we were reading journal articles instead of a textbook and how students took an active role in teaching by presenting different papers." To cite a more recent event, one of our alumni who took my Swarm Intelligence class asked me to write him a letter of recommendation for admission to graduate school, based on his experience in that class. I am happy to report that he is starting graduate school as I write this, at the Colorado School of Mines, intending to work on human/robot interaction.
- *Natural Language Processing.* More recently, I taught an NLP course twice, again in the form of a graduate seminar with the same goals as the Swarm Intelligence course. As part of that courses, Larry Moss and I organized the IU-RHIT NLP day (twice.) As part of that event, my students and I travelled to IU (the first time, the second time, the event was held virtually, due to the COVID-19 pandemic) where we met with Larry, Dr. Sandra Kbler and some of their Ph.D. students. Everyone present gave a presentation of their work. It was a wonderful experience for my students and very inspiring for me.
- *Client to Senior Research Project.* During the 2017/18 AY, I was a client for a senior project aimed at developing the information processing architecture of Rose-Hulman's entry in the IBM Watson AI XPRIZE competition. We focused on the intricacies of collecting the massive amounts of data that our neural networks approach requires. As such, my team reengineered our primary data collection tool so that it works reliably and then simplified it. The team also used the data that they gathered to train a neural network. We had plans of publishing our work, but decided that the contribution was not sufficiently significant. During the 2018/19 AY I am a client again, continuing the work begun the year before. We will add true gesture recognition to the existing natural language recognition, develop a shared environment, and plan to extend the system to 3D and eventually a physical robot. This will be sufficiently significant for a conference paper.

In this context, I do not shy away from offering courses at the cutting edge of technology, courses for which there are no textbooks and no traditional learning materials, this includes a course entitled "Cognitive Computing" (see above) and a seminar entitled "Web-based Information Systems" (see above.)

Academic Service

While at Rose-Hulman Institute of Technology, I have served on many committees, 45 to be specific. Some of them never met and some made lasting, positive changes to the way Rose-Hulman operates. I will focus my service activities on my role on those committees as well as other service activities that made Rose-Hulman a better place.

Hopping on the World-Wide Web

Partly due to my interest in the world-wide web, I made significant contributions towards moving Rose-Hulman, as well as Siena College onto the web. At Siena College, during the summers 1996 - 1999, I installed the web server of the Computer Science Department and was the webmaster for the web site. Among others, I designed webpages for our department. When I first arrived on the Rose-Hulman campus, a good number of course materials were made available through the AFS file system. During my first two years at Rose, I moved the course materials for several courses onto the web. I additionally held four seminars for students, staff and faculty, designed to learn how to build web-pages. More recently, I organized talks by the CSO and the CTO of CloudOne, to give talks about the Internet of Things.

During my second year at Rose-Hulman, I was named chair of the Technology Enhanced Instruction Team during my second year at Rose. This team was charged with investigating and recommending directions that Rose-Hulman Institute of Technology might employ and support in the areas of web-based instruction, technology in the classroom, and in general any other technology that might enhance our ability to provide the best learning experience possible. This was a very active team in which all members were very interested in pursuing the charge given to us. We surveyed student and faculty opinions on the issues and debated them. We wrote a report of our recommendations and presented them during a faculty meeting. The major recommendations of the report have since been implemented.

I additionally served on committees to streamline the CSSE department and the Rose-Hulman web-sites and to provide a secure and confidential online grade book for the CS department.

Improving Education

I served on the Quality of Education committee at a time when it was charged with determining a course of action to bring the Center for Excellence in Education (CEE) to fruition. We organized a series of presentations related to teaching. Another charge to the Quality of Education committee was to review the course evaluation forms. We spent a lot of time and energy on surveying the appropriate constituents and to debate the feedback received. The outcome was very positive as the faculty voted to adopt the proposed new course evaluation forms which are much simplified and use the $+\delta$ approach.

I furthermore served on a good number of my own department's committees that are concerned with improving education, including:

- The Mathematics sub-committee in which we studied current and perceived needs of the Mathematics requirements for the Computer Science B.S. degree.
- The departmental sub-committee for the introductory course sequence. We developed detailed course objectives for those courses, a summer ad-hoc committee on streamlining the course contents and outcomes for our introductory sequence. Among others, we developed revised course outcomes for the three introductory courses,
- Chair of the CSSE professional courses committee. We developed course outcomes and outlines for two professional practices courses, one to be offered during the freshman year and one during the junior year.
- Chair of the CSSE introductory courses sequence committee. The task force was charged with developing outcomes for the introductory sequence of courses, focusing the following courses: CSSE 120, CSSE 220, CSSE 221, CSSE 230 and CSSE 132. We met on a weekly basis, developing the charge for the committee, gathering and brainstorming outcomes and organizing them into categories. The meetings were very beneficial in terms of informing each other about the contents of the different courses we teach. The work created a better understanding of what to cover in the courses we teach and propelled individual instructors to change course outcomes. We never were completely successful as the department could not decide where to place the materials on the C programming language.

Fun Things

2015: Proposed and subsequently was put in charge of the question and answer session following Ray Kurzweil's talk that he gave as part of the Oscar C. Schmidt Memorial Lecture series. I suggested that we use modern technology to manage questions from the audience. We used a web-site that enabled participants to pose and vote on questions that me may wish to ask of Mr. Kurzweil. I felt that this

would take away some of the randomness of using a microphone and that it would be very appropriate to use the latest technology, given that the speaker is an acknowledged futurist. With the help of two of our students, we were able to pose questions that captured the interest of the audience. Incidentally, our activities crashed the hosting server (reddit.com); on our side, everything went very smoothly. As a consequence of this event, we now have exceptional wireless connectivity in Hatfield Hall.

2001-09: Served on the board overseeing "Engenious Solutions," a student-run company sponsored by an Ely Lilly grant. The objective of this company was to aid our students in developing their entrepreneurial skills.

1996 - 1999: Co-organizer of the Siena College Happy Hours for Faculty, Staff, and Administrators.