# Thomas P. Way

## Associate Professor, Computing Sciences

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#### EDUCATION

Ph.D.	2002	Computer Science	University of Delaware
M.S.	1997	Computer Science	University of Delaware
B.A.	1984	Film & Television	University of Maryland, College Park

#### RESEARCH

<b>Associate Professor</b> Villanova University - Villanova, Pennsylvania Department of Computing Sciences	2008-present
<b>Project Manager</b> Center of Excellence in Enterprise Technology (CEET) Research collaboration on entrprise-scale projects, including Comcast, SHAPE, and ARCES. CEET web master. Villanova College of Liberal Arts and Sciences & Department of Computing Sciences	2006-present
<b>Director</b> Applied Computing Technology Laboratory (ACT Lab) Research pedagogy project, developing student research abilities, fostering collaborative research, producing publishable results. Department of Computing Sciences	2005-present
<b>Program Manager</b> Applied Research in Computing Enterprise Services (ARCES) Manage research team of 20 faculty, students and staff, 10 industry partners. U.S. Air Force research project Villanova University, in cooperation with Gestalt, LLC	2006-2009
<b>Assistant Professor</b> Villanova University - Villanova, Pennsylvania Department of Computing Sciences	2002-2008
Research Areas	

Machine learning, parsing, sentiment analysis, machine translation, applied computing technology, software engineering, computer science education, technology literacy.

## **GRANTS / DIRECTED FUNDING**

Earlier and Broader Access to Machine Learning, 2012-2017 Source: National Science Foundation Co-PIs: Lillian Cassel (PI), Paula Matuszek Amount: \$199,874.00 Social-spatial risk and protective mechanisms in urban adolescent substance use, 2012-2017 Source: National Institutes of Health, National Institute on Drug Abuse, 2012-201 Co-investigator with PI Dr. Michael Mason, Virginia Commonwealth University Amount: \$2,901,050 A Google Glass Memory Enhancement Application Using Machine Learning, 2014-2015 Source: Google Glass Accessibility Research Awards Program, Google Co-PI: William Wagner Amount: \$19,749.68. Developing a Cross-Disciplinary Approach: People and Computers, Writing and Translating, 2012 Source: Villanova Institute for Teaching and Learning (VITAL) Co-PI: Seth Whidden Amount: \$9,700 Reducing Teen Tobacco Use Via Text Messaging: Motivational Interviewing Integrated with Social Network Counseling, 2012-2015 Source: Virginia Foundation for Healthy Youth Co-Investigator with PI Dr. Michael Mason, and others Amount: \$449,867 Motivational Interviewing Integrated with Social Network Intervention for Teens, 2012-2015 Source: National Institutes of Health, National Institute on Drug Abuse Co-Investigator with PI Dr. Michael Mason Amount: \$600,000 Network Data Mining, 2010-2011 Source: Comcast Co-PIs: Vijay Gehlot Amount: \$20,000 Stake-Holder Asset-based Planning Environment (SHAPE), 2009-2011 Source: Sponsored by Colorado Engineering, Inc. sub-contract from the Department of Defense Co-PIs: Vijay Gehlot (PI) Robert Beck, Frank Klassner Amount: \$112,500.00 Development of an Interdisciplinary Course on Computing & the Environment Source: Villanova Institute for Teaching and Learning (VITAL), 2010 Amount: \$5,500 Support Grant for Villanova ACM Student Chapter Source: Lockheed-Martin Corporation, 2009 Amount: \$500 Distributed Expertise in Enhancing Computing Education with Connection to the Arts Source: NSF CISE Pathways to Revitalized Undergrad. Computing Educ., 2008-2011 Co-PIs: Lillian Cassel, Villanova University & Kim Pearson, TCNJ Amount: \$299,000 Automation of Technical Reachback for PMESII Best Practices and Lessons Learned in Stabilization and Reconstruction Environments

Source: Army Phase II STTR, with Colorado Engineering, Inc., 2008-2009 Co-PI: Vijay Gehlot, Villanova University Amount: \$150,000

- Applied Research in Computing Enterprise Services (ARCES) Source: U.S. Air Force, GCCS-AF, PE 33150F, 2005-2007 Through the Center of Excellence in Enterprise Technology (CEET) Industry partner: Gestalt, LLC Co-PIs: Robert Beck and John Lewis, Villanova University Amount: \$6.3 million contract, \$4.3 million funded
- Plagiarism Detection and Research Writing Validation Source: SIGCSE Special Projects Grant program, 2007 Amount: \$4,000
- A Course on Service-Oriented Architecture Design and Analysis Source: Villanova Institute for Teaching and Learning (VITAL), 2007 Co-PI: Vijay Gehlot, Villanova University Amount: \$8,000
- Field Programmable Gate Array equipment & software license grants Sources: Altera Corporation, Xilinx Inc., 2005 Amount: \$7,279

## **OTHER PROFESSIONAL EXPERIENCE**

<b>Software Engineer</b> Blair Computing Systems, Inc Newark, DE Software development for medical imaging and printing, continuing consultant.	1997-2002
<b>Vice President - Product Development</b> AgoraNet, Inc Newark, DE Software development, Internet hosting and web design.	1995-2002
<b>Graduate Research &amp; Teaching Assistant</b> University of Delaware - Newark, DE <i>High Performance Computing Group (1996-1997)</i> <i>Applied Science &amp; Engineering Labs (1994-1996)</i>	1994-1997
<b>Computer Consultant</b> Entertainment Industry - Los Angeles, CA Independent consulting on a contract basis.	1988-1994
Freelance Television Production Entertainment Industry - Los Angeles, CA	1984-1994

## SERVICE

## UNIVERSITY

- Faculty Congress, Chair, 2018-2022
- Awards Committee, advisory member, 2018-2022
- Faculty advisor for Villanova Trading Card Club student organization, 2012-2020
- Faculty advisor for Villanova University student chapter of the Association of Computing Machinery, 2006-2019
- University Senate, 2008-2016
- Faculty Congress, 2008-2016
- Committee on Faculty / Faculty Rights and Responsibilities, 2008-2016
- Awards Committee, co-chair, 2009-2015

• Information Literacy Outcomes Subcommittee of the University Outcomes Assessment Committee, 2004

# COLLEGE

- Science and Math Core Curriculum Committee, 2014-2018
- Center of Excellence in Enterprise Technology, member, 2006-present
- On-camera Spokesperson, College promotional video, 2012
- Candidate interviewer, Gregor Mendel Biology Chair in Genetics, 2010
- Science Education Task Force, 2008-2010
- Committee on Majors and Concentrations (CMC), 2007-2010
- Premier Liberal Arts brainstorming focus group, College Strategic Planning Committee, 2007

## DEPARTMENT

- Non-Major courses (CS4All) Committee, 2014-present, chair 2019-present
- Class of 2026 Advisor, 2022-present
- Annual Evaluation Committee, 2018-present
- Class of 2022 Advisor, 2018-2022
- Publicity Committee, 2018-present
- Web Site Committee, 2016-present
- Curriculum Committee, 2002-2019, chair 2016-2019
- Assessment Committee, 2016-present
- ICE Center liaison, 2016-2019
- Grand Challenges Committee, 2016-present
- Class of 2018 Advisor, 2014-2018
- Faculty Search Committee, 2013-present
- Colloquium Committee, 2009-present, chair, 2009-2015
- MS in Software Engineering (MSSE) Committee, 2006-2016
- Editor of departmental newsletter, 2006-2016
- Outreach Committee, 2005-present, chair 2014-2016
- Class of 2014 Advisor, 2010-2014
- Class of 2010 Advisor, 2006-2010
- CS Zero Working Group, 2005-2006
- Revamping Operating Systems and Computer Organization (ROSCO) Committee, 2005-2006
- Undergraduate Admissions Committee, 2004-2006
- Class of 2006 Advisor, 2002-2006
- Supervised 70 graduate student independent study projects and two Master's Theses

## PROFESSIONAL

- Faculty expert, media contact handling interview requests for computing topics for Villanova Office of Communication, Department of Media Relations, 2010-present
- Faculty mentor for SISMAT Cybersecurity Program with Dartmouth University, 2010

- Local Arrangements Coordinator, Annual Consortium for Computing Sciences in Colleges, 25<sup>th</sup> Annual Eastern Conference (CCSCE), 2009
- Reviewer, Pearson-Addison Wesley textbook, 2009
- Reviewer, CCSCE Conference, 2009
- Program committee member, ICTAI 2009 Conference, 2009
- Local Arrangements Chair, Sixth IEEE International Workshop on Source Code Analysis and Manipulation Workshop of Twenty first IEEE International Conference on Software Maintenance (ICSM 2006), 2006
- Program committee member, WIE 2007 Conference, 2007
- Reviewer, 29th Conference of IEEE Engineering in Medicine and Biology Society, 2007
- Reviewer, SIGCSE Technical Symposium, 2004-present
- Reviewer, ITiCSE Conference, 2004-present
- Referee, Software-Practice & Experience (SPE) journal, 2006
- Reviewer, McGraw-Hill textbook, 2004
- Reviewer, Oxford University Press textbook, 2004
- Reviewer, IASTED PDCS Conference, 2002
- Referee, IEEE Transactions on Rehabilitation Engineering, 1998-2000
- Participated in "HPC Network Simulation for the DoD" Electronics, Networking and Systems (ENS) training workshop,2007
- Mentor for National Consortium for Specialized Secondary Schools of Mathematics, Science, and Technology (NCSSSMST) annual Student Research Symposium, 2005
- Continuing author of Dihydrogen Monoxide Research Division (DHMO.org) science satire and critical thinking website, used internationally by educators, 1997-present
- Board of Directors, AgoraNet, Inc., 1995-present
- Member, Association of Computing Machinery
- Member, Special Interest Group on Computer Science Education (SIGCSE)

## COMMUNITY

- Software consultant and web site designer for a number of local not-for-profit organizations, schools and churches, ongoing
- Set construction for high school theater productions, 2010-present
- Youth group advisor, local church, 2005-2012

## Honors

- Faculty Award for Innovative Teaching, Villanova University, 2014
- Finalist (one of five), Villanova University "Last Lecture" faculty award, nominated by graduating senior class, 2005
- Runner-up, Best Paper Award, PACT 2000 Technical Conference, 2000
- Upsilon Pi Epsilon Computer Science Honor Society, 1998
- Alpha Epsilon Rho Broadcasting Honor Society, 1984

## BOOKS

**Thomas Way**. Rephactor Java. Online-only textbook. Initially released August 2016. Continually updated. Online: Rephactor.com

**Thomas Way**. Rephactor Python. Online-only textbook. Initially released August 2019. Continually updated. Online: Rephactor.com

#### **PUBLICATIONS**

**Thomas Way**. "A Framework for Unsupervised Extraction of Social Networks from Textual Materials." The 20th International Conference on Artificial Intelligence (ICAI 2018), Las Vegas, Nevada, July 30 - Aug. 2, 2018.

**Thomas Way**. "Evaluation of the Conjoined Approach to Interdisciplinary Computer Science Education." The 14th International Conference on Frontiers in Education: Computer Science and Computer Engineering (FEC 2018), Las Vegas, Nevada, July 30 -Aug. 2, 2018.

Lillian Cassel, Don Goelman, Paula Matuszek, Mary Angela Papalaskari, Michael Posner, **Thomas Way**, Darina Dicheva, and Christo Dichev. "Lessons Learned: Developing Advanced Topics For Broad Use." Poster presentation. 23rd Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2018), Larnaca, Cyprus, July 1-4, 2018.

Keith J. O'Hara, Sven Anderson, David Musicant, Amber Stubbs, **Thomas Way**. "Team-Teaching with Colleagues in the Arts and Humanities." 49th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2018), Baltimore Maryland, Feb. 2018.

Nikola Zaharakis, Michael Mason, Jeremy Mennis, John Light, Julie Rusby, Erika Westling, Stephanie Crewe, Brian Flay, **Thomas Way**. "School, Friends, and Substance Use: Gender Differences on the Influence of Attitudes Toward School and Close Friend Networks on Cannabis Involvement." Prevention Science, Vol. 19, No. 1, pp. 138-146. Feb. 2018.

Jeremy Mennis, Michael Mason, Andreea Ambrus, **Thomas Way**, Kevin Henry. "The spatial accuracy of geographic ecological momentary assessment (GEMA): Error and bias due to subject and environmental characteristics." Drug and Alcohol Dependence. Vol. 178, pp. 188-193. Sept. 1, 2017.

Michael J. Mason, John M. Light, Jeremy Mennis, Julie C. Rusby, Erika Westling, Stephanie Crewe, Nikola Zaharakis, **Thomas Way**, Brian R. Flay, "Neighborhood disorder, peer network health, and substance use among young urban adolescents." Drug and Alcohol Dependence, Volume 178, September 1, 2017, pp. 208-214.

**Thomas Way**, Mary-Angela Papalaskari, Lillian Cassel, Paula Matuszek, Carol Weiss and Yamini Praveena Tella. "Machine Learning Modules for All Disciplines." Courseware presentation. 22nd Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2017), Bologna, Italy, July 3-5, 2017.

**Thomas Way**, Paula Matuszek, Lillian Cassel, Mary-Angela Papalaskari and Carol Weiss. "Machine Learning for Everyone: Introduction to Classification and Clustering." Educational module content and presentation. Seventh AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-17), San Francisco, Feb. 5-6, 2017.

Michael J. Mason, Jeremy Mennis, **Thomas Way**, Leah Floyd Campbell, Eric Benotsch, Lori Keyser-Marcus, Laura King, Nikola Zaharakis. "Text Message Delivered Peer Network Counseling for Adolescent Smokers: A Randomized Controlled Trial." Journal of Primary Prevention. Vol. 37, No. 5, pages 403-420, October 2016.

**Thomas Way**, Lillian Cassel, Paula Matuszek, Mary-Angela Papalaskari, Divya Bonagiri and Aravinda Gaddam. "Broader and Earlier Access to Machine Learning." Poster presentation. 21st Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016), Araquipa, Peru, July 11-13, 2016.

**Thomas Way**, Seth Whidden. "A Parallel, Conjoined Approach to Interdisciplinary Computer Science Education." Poster presentation. 21st Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016), Araquipa, Peru, July 11-13, 2016.

**Thomas Way**. "An Improved Approach for Interactive Ebooks." Courseware presentation. 21st Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016), Araquipa, Peru, July 11-13, 2016.

Jeremy Mennis, Michael Mason, **Thomas Way**, Nikola Zaharakis. "The Role of Tobacco Outlet Density in a Smoking Cessation Intervention for Urban Youth." Health & Place. Jan. 2016.

Michael Mason, John Light, Julie Rusby, Erika Westling, **Thomas Way**, Brian Flay, Nikola Zaharakis. "Parents, Peers, and Places: Young Urban Adolescents' Microsystems and Substance use Involvement." Journal of Child and Family Studies. Dec. 2015.

Michael Mason, Jeremy Mennis, Nikola Zaharakis and **Thomas Way**. "The Dynamic Role of Urban Neighborhood Effects in a Text-Messaging Adolescent Smoking Intervention." Nicotine & Tobacco Research. Dec. 2015.

Michael Mason, Jeremy Mennis, **Thomas Way**, Stephanie Lanza, Michael Russell and Nikola Zaharakis. "Time-Varying Effects of a Text-based Smoking Cessation Intervention for Urban Adolescents." Drug and Alcohol Dependence. Dec. 2015.

Michael Mason, John Light, Leah Floyd Campbell, Lori Keyser-Marcus, Stephanie Crewe, **Thomas Way**, Heather Saunders, Laura King, and Nikola Zaharakis. "Peer Network Counseling: A Randomized Controlled Trial with At-Risk Urban Adolescents." Journal of Substance Abuse Treatment. July 2015.

Michael Mason, Jeremy Mennis, **Thomas Way** and Leah Campbell. "Real-Time Readiness to Quit and Peer Smoking within a Text Message Intervention for Adolescent Smokers: Modeling Mechanisms of Change." Journal of Substance Abuse Treatment. Dec. 2015, Vol. 59, pages 67–73.

**Thomas Way**, Adam Bemiller, Raghavender Mysari and Corinne Reimers. "Using Google Glass and Machine Learning to Assist People with Memory Deficiencies." The 17th International Conference on Artificial Intelligence (ICAI 15), Las Vegas, Nevada, July 27-30, 2015.

Michael Mason, Jeremy Mennis, **Thomas Way**, John Light, Julie Rusby, Erika Westling, Stephanie Crew, Brian Flay, Leah Campbell, Nikola Zaharakis, Chantal McHenry. "Young Adolescents' Perceived Activity Space Risk, Peer Networks, and Substance Use." Health & Place, 2015, Vol. 34, pages 143-149.

Michael Mason , Leah Campbell, **Thomas Way**, Lori Keyser-Marcus, Eric G. Benotsch, Jeremy Mennis, Jing Zhang, Laura King, J. May, & D. Stembridge. Development and Outcomes of a Text Messaging Tobacco Cessation Intervention with Urban Adolescents. Substance Abuse. Dec. 2014. Epub 2014 Dec 31.

**Thomas Way** and Seth Whidden. "A Loosely-Coupled Approach to Interdisciplinary Computer Science Education." The 2014 International Conference on Frontiers in Education: Computer Science and Computer Engineering (FEC 2014), Las Vegas, Nevada, July 21-24, 2014. Michael Mason, Leah Campbell, Jing Zhang, Laura King, **Thomas Way**, Jeremy Mennis, Lori Keyser-Marcus and Eric Benotsch. "Reducing Teen Tobacco Use Via Text Messaging: Motivational Interviewing (MI) Integrated With Social Network Counseling." Society for Prevention Research, 22nd Annual Meeting, Washington, DC, May 27-30, 2014.

**Thomas Way**, Corinne Reimers, Adam Bemiller and Bill Wagner. "Memory Enhancement using Machine Learning: The GLASSessibility Project." Poster presentation, Google Glass Accessibility Workshop, Mountain View, California, May 15-16, 2014.

Jeremy Mennis, Michael J. Mason, John Light, Julie Rusby, Erika Westling, **Thomas Way**, and Nikola Zaharakis. "Integrating Ecological Momentary Assessment (EMA) with GPS Data to Study Geographic Characteristics of Adolescent Substance Use: Preliminary Results." Association of American Geographers (AAG) Annual Meeting, April 8-12, 2014.

Michael Mason, Eric G. Benotsch, **Thomas Way**, Hannah Kim, and Daniel Snipes. "Text Messaging to Increase Readiness to Change Alcohol Use in College Students." The Journal of Primary Prevention, Springer US, Oct. 2013, Vol. 31, No. 1, pages 47-52.

**Thomas Way**, Michael Mason, Eric Benotsch, Hannah Kim and Daniel Snipes. "Design of an Interactive Text Messaging Platform for Problem Alcohol Use Intervention in College Students." The 2013 International Conference on Internet Computing and Big Data (ICOMP 2013), Las Vegas, Nevada, July 22-25, 2013.

Michael Mason, Jeremy Mennis, John Light, Julie Rusby, Erika Westling and **Thomas Way**. "A Social fMRI: Integrating Mobile Technology, Social Network Analysis, and Ecological Momentary Assessment to Understand the Daily Lives of Adolescents." Research symposium presentation, Society for Prevention Research, 21st Annual Meeting, San Francisco, California, May 28-31, 2013.

Thomas Carpenter and **Thomas Way**. "Tracking Sentiment Analysis through Twitter." The 2012 International Conference on Information and Knowledge Engineering (IKE 2012), Las Vegas, Nevada, July 16-19, 2012.

Vijay Gehlot, **Thomas Way** and Frank Klassner. "Coexistence of Functional and Objectoriented Paradigms." Journal of Computing Sciences in Colleges, Volume 27, Issue 3, pages 122-129, January, 2012.

Vijay Gehlot, **Thomas Way** and Frank Klassner. "Coexistence of Functional and Objectoriented Paradigms." The 27th Annual Consortium for Computing Sciences in Colleges -Eastern Conference (CCSCE 2011), Marymount University, Arlington, Virginia, October 14 and 15, 2011.

Thomas Carpenter, Gregory Doerfler, **Thomas Way** and Frank Klassner. "An Approach to Maintaining Viewer Perspective in Interactive Virtual Tours." The 2011 International Conference on Computer Graphics and Virtual Reality (CVGR 2011), Las Vegas, Nevada, July 18-21, 2011.

Anthony Dovelle, John Truitt and **Thomas Way**. "Initial Design of a Software-Based, Tremor-Reduction, Presentation Pointer." The 2011 International Conference on Computer Graphics and Virtual Reality (CVGR 2011), Las Vegas, Nevada, July 18-21, 2011.

Ursula Wolz, Lillian Cassel, **Thomas Way**, Kim Pearson. "Cooperative Expertise for Multidisciplinary Computing." 42nd SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2011), March 2011.

**Thomas Way**, Lillian Cassel, Kim Pearson, Ursula Wolz, Deborah Tatar, Steve Harrison. "A Distributed Expertise Model for Teaching Computing Across Disciplines and Institutions." The 2010 International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS 2010), Las Vegas, Nevada, July 12-15, 2010. **Thomas Way**, Tao Tao and Bryan Wagner. "Compiling Mechanical Nanocomputer Components." Global Journal of Computer Science and Technology, Volume 10, Issue 2, pages 36-42, April, 2010.

**Thomas Way**. "Procedure Restructuring for Ambitious Optimization." Lambert Academic Publishing, Germany, ISBN 978-3-8383-4506-2, 2010.

**Thomas Way** and Vijay Gehlot. "Making Service Oriented Architecture Relevant using a Multidisciplinary Approach." Journal of Computing Sciences in Colleges, Volume 25, Issue 3, pages 110-116, January 2010.

**Thomas Way** and Vijay Gehlot. "Making Service Oriented Architecture Relevant using a Multidisciplinary Approach." The Consortium for Computing Sciences in Colleges 25th Annual Eastern Conference (CCSCE 2009), Villanova University, Villanova, Pennsylvania, October 30 and 31, 2009.

**Thomas Way** and Vijay Gehlot. "Design and Assessment of a Multidisciplinary Course in Service Oriented Architecture." The 2009 International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS 2009), Las Vegas, Nevada, July 13-16, 2009.

**Thomas Way**, Sandhya Chandrasekhar and Arun Murthy. "The Agile Research Penultimatum." The 2009 International Conference on Software Engineering Research and Practice (SERP 2009), Las Vegas, Nevada, July 13-16, 2009.

Lillian Cassel, **Thomas Way** and Sridhara Potluri. "CPATH: Distributed Expertise -Collaborating with Other Disciplines." Poster presentation.14th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2009), Paris, France, July 6-9, 2009.

Lillian Cassel, **Thomas Way** and Sridhara Potluri. "CPATH: Distributed Expertise -Collaborating with Other Disciplines." Poster presentation, Sigma Xi Student Research Conference, April 25, 2009.

Mujtaba Talebi and **Thomas Way**. "Methods and Metrics for a Green Computer Science Program." SIGCSE Technical Symposium (SIGCSE 2009), March 2009.

Shashank Kaushik and **Thomas Way**. "Design of an Automatic Password Protection Mechanism for Digital Documents." The International Conference on Security and Management (SAM 2008), Las Vegas, Nevada, July 14-17, 2008.

**Thomas Way**, Rushikesh Katikar, and Purushotham Ch. "Nanocompilation for the Cell Matrix Architecture." The International Conference on Computer Design (CDES 2008), Las Vegas, Nevada, July 14-17, 2008.

Michael Mason, Amber Pomponio, **Thomas Way**, Michael Cuningham, Patricia Zelenak, and Suet Lim. "A Retrospective Chart Review of Adolescent Mental Health in Urban Primary Care." Poster presentation, The College of Physicians of Philadelphia, session on public health issues, May 6, 2008.

**Thomas Way**, Richard Kheir and Louis Bevilacqua. "Achieving Acceptable Accuracy in a Low-Cost, Assistive Note-Taking, Speech Transcription System." The IASTED International Conference on Telehealth and Assistive Technologies (Telehealth/AT 2008), Baltimore, Maryland, April 16-18, 2008.

Elliot Sloane, Vijay Gehlot, **Thomas Way** and Robert Beck. "System of Systems Issues for the 2008 US National Healthcare Information Network Remote Patient Monitoring Requirements." The 2nd Annual IEEE Systems Conference (IEEE SysCon 2008), Montreal, Quebec, Canada, April 7-10, 2008. Melissa Corning, **Thomas Way**, Mary-Angela Papalaskari and Najib Nadi. "Computer Science Workshops from the Villanova Magic School Science Camp." Poster presentation, SIGCSE Technical Symposium (SIGCSE 2008), March 2008.

Karen L. Hess, Mary-Angela Papalaskari, Randy Weinstein, Robert Styer, **Thomas Way** and Anthony Lagalante. "Special Session: Creation of the Milwaukee School of Magic." 37th ASEE/IEEE Frontiers in Education Conference, Milwaukee, Wisconsin, October 10-13, 2007.

Mary-Angela Papalaskari, Karen L. Hess, Anthony Lagalante, Najib Nadi, Robert Styer, **Thomas Way** and Randy Weinstein. "Work in Progress: Engineering the Magic School - Creativity and Innovation in Context." 37th ASEE/IEEE Frontiers in Education Conference, Milwaukee, Wisconsin, October 10-13, 2007.

**Thomas P Way** and Tao Tao. "Compiling a Mechanical Nanocomputer Adder." International Conference on Computer Design (CDES 2007), pages 171-177, June 26-28, 2007.

Richard Kheir and **Thomas Way**. "Inclusion of deaf students in computer science classes using real-time speech transcription." 12th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2007), Dundee, Scotland, pages 261-265, June 25-27, 2007.

Joseph Distasio and **Thomas P. Way**. "Inclusive computer science education using a ready-made computer game framework." 12th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2007), Dundee, Scotland, pages 116-120, June 25-27, 2007.

Elliot Sloane, **Thomas Way**, Vijay Gehlot, Anany Levitin and Robert Beck. "SoSE Modeling and Simulation Approaches to Evaluate Security and Performance Limitations of a Next Generation National Healthcare Information Network (NHIN-2)." IEEE System of Systems Conference, pages 1-6, San Antonio, Texas, April 16-18, 2007.

Elliot Sloane, **Thomas Way**, Vijay Gehlot, and Robert Beck. "Using Hybrid SoSE Approaches for Modeling and Validating Large Scale Service Oriented Architecture (SOA) System of Systems as Next-Generation Global Military Informatics Platforms with Colored Petri Nets (CPN) and Extend/MESA" IEEE System of Systems Conference, pages 1-6, San Antonio, Texas, April 16-18, 2007.

Elliot Sloane, Vijay Gehlot, Robert Beck and **Thomas Way**. "Conceptual SoS Model and Simulation Systems for a Next Generation National Healthcare Information Network (NHIN-2): Creating a Net-Centric, Extensible, Context Aware, Dynamic Discovery Framework for Robust, Secure, Flexible, Safe, and Reliable Healthcare." 2007 1st Annual IEEE Systems Conference, pages 1-6, Honolulu, Hawaii, April 9-12, 2007.

Elliot Sloane, **Thomas Way**, Vijay Gehlot, Robert Beck, James Solderitsch and Elzbieta Dziembowski. "A Hybrid Approach to Modeling and Validating a Large Scale SOA Systems of Systems Using CPN and MESA/Extend." 2007 1st Annual IEEE Systems Conference, pages 1-7, Honolulu, Hawaii, April 9-12, 2007.

**Thomas Way**, Kallie Nordengren, Mary-Angela Papalaskari, Sue Metzger, Najib Nadi, Robert Styer, Melissa Corning and Adam Stepe. "A Novel Service Learning Program with a Computer Science Foundation." Poster presentation, 38th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2007), March 2007.

**Tom Way**. Book chapter on technology literacy, critical thinking and psychic debunking, in "South Park and Philosophy," Edited by Richard Hanley, Open Court Publishing Company, Popular Culture and Philosophy Series, Vol. 26, pages 271-289, March 2007.

Vijay Gehlot, **Thomas Way**, Robert Beck and Peter DePasquale. "Model Driven Development of a Service Oriented Architecture (SOA) Using Colored Petri Nets." 1<sup>st</sup> Workshop on Quality in Modeling, ACM/IEEE 9th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2006), pages 63-77, Genoa, Italy, October 1, 2006.

Joseph Distasio and **Thomas P. Way**. "Exploring Computer Science Concepts with a Ready-made Computer Game Framework." Technical Report cs/0609070, arXiv.org archive, 5 pages, 2006.

M.A. Papalaskari, Karen Hess, Debra Kossman, Sue Metzger, Alain Phares, Robert Styer, Connie Titone, **Thomas Way**, Randy Weinstein, Francis Wunderlich. "PIVOTS: Service Learning at the Science, Theatre & Magic Boundary." 36th ASEE/IEEE Frontiers in Education Conference, pages T2H:18-23, San Diego, October 28-31, 2006.

**Thomas P. Way**. "Compilation for Future Nanocomputer Architectures." 2006 International Conference on Computing in Nanotechnology (CNAN 2006), pages 251-257, Las Vegas, June 2006.

Bryan W. Wagner and **Thomas P. Way**. "MolML: An Abstract Scripting Language for Assembly of Mechanical Nanocomputer Architectures." 2006 International Conference on Computing in Nanotechnology (CNAN 2006), pages 258-264, Las Vegas, June 2006.

Richard Kheir, **Thomas Way**. "Improving Speech Recognition to Assist Real-time Classroom Note Taking." Rehabilitation Engineering and Assistive Technology Society of North America (RESNA 2006) Conference, electronic proceedings, 4 pages, Atlanta, Georgia, June 2006.

**Thomas P. Way**, Lori L. Pollock. "Demand-driven Inlining in a Region-based Optimizer for ILP Architectures." Technical report cs/0604043, arXiv.org archive, 23 pages, 2006.

**Thomas P. Way**. "A Virtual Laboratory Model for Encouraging Undergraduate Research." Proceedings of the 37th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2006), pages 203-207, Houston, Texas, March 2006.

Timothy M. White and **Thomas P. Way**. "jFAST: A Java Finite Automata Simulator." Proceedings of the 37th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2006), pages 384-388, Houston, Texas, March 2006.

Sebastian Niezgoda and **Thomas P. Way**. "SNITCH: a Software Tool for Detecting Cut and Paste Plagiarism." Proceedings of the 37th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2006), pages 51-55, Houston, Texas, March 2006.

Nicholas DiPasquale, Vijay Gehlot and **Thomas Way**. "Comparative Survey of Approaches to Automatic Parallelization." Mid-Atlantic Student Workshop on Programming Languages and Systems (MASPLAS), pages 5:1-5:6, Newark, Delaware, 2005.

**Thomas Way**. "A Company-Based Framework for a Software Engineering Course." Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2005), St. Louis, Missouri, pages 132-136, February 2005.

**Thomas Way**, Ben Breech, Wei Du, and Lori Pollock. "Empirical Study of Region-based Partial Inlining." International Conference on Parallel and Distributed Computing Systems, pages 705-710, Cambridge, MA, November 2002.

**Thomas Way**, Ben Breech, Wei Du, and Lori Pollock. "A Region-based Partial Inlining Algorithm for an ILP Optimizing Compiler." International Conference on Parallel and Distributed Processing Techniques and Applications, pages 552-556, Las Vegas, Nevada, June 2002. **Thomas Way**. "Procedure Restructuring for Ambitious Optimization." Ph.D. Dissertation. May 2002.

**Thomas Way**, Ben Breech, Wei Du, and Lori Pollock. "Demand-driven Inlining Heuristics in a Region-based Optimizing Compiler for ILP Architectures." In International Conference on Parallel and Distributed Computing and Systems, pages 90-95, Anaheim, California, 2001.

**Thomas Way**, Ben Breech, Wei Du, Ves Stoyanov and Lori Pollock. "Using Path-spectrabased Cloning in Region-based Optimization for Instruction-Level Parallelism." In 14<sup>th</sup> International Conference on Parallel and Distributed Computing Systems, pages 83-90, Richardson, Texas, 2001.

**Thomas Way**, Ben Breech and Lori Pollock. "Region Formation Analysis with Demanddriven Inlining for Region-based Optimization." In International Conference on Parallel Architectures and Compilation Techniques (PACT), pages 24-33, Philadelphia, Pennsylvania, 2000.

**Tom Way**, Ben Breech, Wei Du, Matt Bridges, Ves Stoyanov and Lori Pollock. "The DIRECT Project The Delaware Interprocedural REgion-based Compiler Toolset Project." Poster presentation. Mid-Atlantic Student Workshop on Programming Languages and Systems (MASPLAS), Newark, Delaware, 2000.

Matt Bridges, **Tom Way** and Lori Pollock. "The VIPeR Tool for Visualizing InterProcedural Regions in Compiler Research." Poster presentation. Mid-Atlantic Student Workshop on Programming Languages and Systems (MASPLAS), Newark, Delaware, 2000.

**Thomas Way** and Lori Pollock. "Using Path Spectra to Direct Function Cloning." In Workshop on Profile and Feedback Directed Compilation at International Conference on Parallel Architectures and Compilation Techniques, pages 40-47, Paris, France, 1998.

**Thomas Way**, Cheer-Sun Yang and Lori Pollock. "Potential Performance Enhancements of MIL-STD 188-220A Through Parallelism." 2nd Annual FedLab Symposium, ARL/ATIRP Consortium, pages 301-305, College Park, Maryland, 1998.

**Thomas Way** and Lori Pollock. "Towards Identifying and Monitoring Optimization Impacts." Mid-Atlantic Student Workshop on Programming Languages and Systems (MASPLAS), pages 1-11, New Paltz, New York, 1997.

**Thomas Way** and Kenneth Barner. "TACTICS: a Tactile Image Creation System." Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), electronic proceedings, 3 pages, Pittsburgh, Pennsylvania, 1997.

**Thomas Way** and Kenneth Barner. "Automatic Visual to Tactile Translation, Part I: Human Factors, Access Methods and Image Manipulation." IEEE Transactions on Rehabilitation Engineering, pages 81-94, March, 1997.

**Thomas Way** and Kenneth Barner. "Automatic Visual to Tactile Translation, Part II: Evaluation of the TACTile Image Creation System." IEEE Transactions on Rehabilitation Engineering, pages 95-105, March, 1997.

**Thomas Way**. "Automatic Generation of Tactile Graphics." Master's Thesis. January, 1997.

**Thomas Way** and Kenneth Barner. "Towards Automatic Generation of Tactile Graphics." Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), pages 161-163, Salt Lake City, Utah, 1996. Jason Fritz, **Thomas Way** and Kenneth Barner. "Haptic Representation of Scientific Data for Visually Impaired or Blind Persons." 11th Annual CSUN Technology and Persons with Disabilities Conference, electronic proceedings, 5 pages, 1996.

## MEDIA INTERVIEWS & APPEARANCES

Live Interview about the "tyranny of the password," Doug McIntyre, TalkRadio KABC 790, Los Angeles, "McIntyre in the Morning" show, July 17, 2014.

Interview, Ian Bush, "Villanova Univ. Project Turns Google Glass Into 'Backup Brain'" CBS Philadelphia and KYW Newsradio 1060, July 14, 2014.

Quoted source, Martha Irvine, "T1RED OF P@SSWORDS? YOU @RE N\*T @LONE!" Associated Press, June 26, 2014. Coined expression "Tyranny of the password."

Quoted source, Gloria Goodale, "Google and Amazon expand same-day delivery. Will it work?" Christian Science Monitor, May 5, 2014.

Quoted source, Geoff Williams, "A Guide to Tipping Apps." U.S. News & World Report, April 29, 2014.

Quoted source, Geoff Williams, "5 Things You Probably Didn't Know About Identity Theft." U.S. News & World Report, Dec. 18, 2013.

Quoted source, Geoff Williams, "Should You Invest in Bitcoin?" U.S. News & World Report, May 1, 2013.

Quoted source, Gloria Goodale, "For Facebook IPO, some suitors wary of the big dance." Christian Science Monitor, May 17, 2012.

Quoted source, Associated Press, "3 trillion pigs down, 'Angry Birds' keeps thriving." Associated Press, picked up by over 26 outlets, Dec. 9, 2010.

Quoted source, Christianna McCausland, "Fix the economy? There's a mobile app for that." Christian Science Monitor, June 28, 2010.

## **INVITED TALKS, WORKSHOPS & INTERVIEWS**

"The Magic of Computer Science." Banquet keynote address, Annual Consortium for Computing Sciences in Colleges, 25th Annual Eastern Conference (CCSCE), October 2009.

"Using Magic to Teach Networking." Colloquium presentation, University of Delaware, Department of Computer & Information Sciences, Special Interest Group on Networking, October 2009.

"The Magic of Computing." Workshop tutorial, Computer Science Education Summer Institute (CSESI), Haverford College, June 2009.

"An Interdisciplinary and Cross-institutional Computer Game Design Course." Workshop presentation, VITAL Teaching & Learning Strategies Conference, Villanova University, May 2009.

Invited speaker at Villanova VITAL New Faculty Program, January 2009.

"Using Magic to Teach Computer Science." Workshop tutorial, SIGCSE Technical Symposium (SIGCSE 2008), March 2008.

"Magical Illusion for Science Education." Workshop tutorial, Villanova Magic School summer science camp, July 2007.

"Magic and Theater in Computing Education." Workshop tutorial, Computer Science Education Summer Institute (CSESI), Haverford College, June 2007.

Invited guest speaker and panel member, Faculty Roles in Institutions of Higher Education course, University of Delaware, June 2007.

Interviewed on WGN Radio, Chicago, on the Nick Digilio Show, April 2007 about my technology literacy and critical thinking chapter in "South Park and Philosophy."

"Using Magic to Teach Computer Science." Workshop tutorial, SIGCSE Technical Symposium (SIGCSE 2007), March 2007.

"Magical Illusion for Science Education." Workshop tutorial, Villanova Magic School summer science camp, July 2006.

"Internet Safety." Invited speaker, Mothers of Multiples conference, March 2006.

Interviewed by Wilmington News Journal for July 30, 2005 front page article about my dihydrogen monoxide web site and its impact on critical thinking and education.

"Magical Illusion for Science Education." Workshop tutorial, Villanova Magic School summer science camp, July 2005.

"Internet Safety." Workshop presenter, 25<sup>th</sup> Annual Parenting Conference, Nursing Mothers, Inc., Newark, Delaware, March 2005.

Invited speaker and panel member, Faculty Roles in Institutions of Higher Education course, University of Delaware, June 2004.

Interviewed on NPR's All Things Considered by Robert Siegel, March, 2004 about my dihydrogen monoxide web site and its impact on critical thinking.