

Professor Amit P. Sheth: Researcher, Educator, Entrepreneur

Education

Ph.D.	1985	Ohio State University, Computer & Information Science
M.S	1983	Ohio State University, Computer & Information Science
B.E.	1981	Birla Institute of Tech. & Science Electrical & Electronics Engineering (Hons.), Pilani, India

Academic Positions/Appointments

June 2019 - Present	NCR Chair and Professor, Computer Science & Engineering. 06/2019-09/2023: Founding Director, Artificial Intelligence Institute. University of South Carolina.
Jan 2007 – May 2007	LexisNexis Ohio Eminent Scholar, Wright State University, Dayton, OH. Executive Director, Ohio Center of Excellence on Knowledge-enabled Computing (Kno.e.sis). Professor, Computer Sc. & Engg. Department. Professor, Biomedical Sciences PhD Program (2009-present), Department of Community Health (2015-present).
2001 – 2007	Member/Professor, Faculty of Engineering, University of Georgia
1994 – 2006	Director, Large Scale Distributed Information Systems (LSDIS) Lab, Athens, GA.
1998 – 2006	Professor, Department of Computer Science, University of Georgia , Athens, GA (on partial sabbatical during 2000 and 2001). Also, Member, Institute of Bioinformatics, UGA (2004–2006), Member, Biomedical & Health Sciences Institute, UGA (2005–2006), and Member/Professor, Faculty of Engineering, University of Georgia (2001–2006)
1994 – 1998	Associate Professor, Department of Computer Science, University of Georgia , Athens, GA. Biomedical & Health Science Institute , Member, 2005 Institute of Bioinformatics , Member, 2004.
May – Jun 1993	Visiting Faculty, Institute of Information Systems, ETH (Swiss Federal Institute of Technology), Zurich, Switzerland
1983 – 1984	Graduate Research Associate, Computer & Information Science Dept., Ohio State University
1981 – 1983	Graduate Teaching Associate, Computer & Information Science Dept., Ohio State University

Entrepreneurship and Industry Employment & Appointments

Current	Cofounder: Cognovi Labs, Inc. Cofounder: ezDI/Healthy.ai. Advisor: Edamam LLC; Board Member: Brain Health Alliance. Scientific Advisory Committee, NDEWS (NIDA's National Drug Early Warning System)
2011-2015	Advisor, DropThought.
Aug 2002 – May 2006	Co-founder/CTO (part-time) Semagix, Inc.
Jun 2001 – Aug 2002	Co-founder/CTO/Exec. VP/, Voquette, Inc. (Merger led to Semagix.)
Aug 1999 – May 2001	Founder, Chairman and CEO, Taalee, Inc. (Acquired by Voquette.)
1997 – Present	Founder and President, Infocosm Inc., S-Corporation, Georgia.

1989 – 1994	Member of Technical Staff, Systems Principles & Research, Morristown, NJ and Computer Systems Integration, Bell Communications Research, (Bellcore) Inc., Piscataway, NJ.
1987 – 1989	Staff Research Scientist, UNISYS West Coast Research Center (formerly SDC), Santa Monica, CA.
1985 – 1987	Principal Research Scientist, Computer Sciences Ctr, Honeywell, MN

Vision and Leadership (see: <http://aiisc.ai/vision>)

- Humanity-inspired AI, Computing for Human Experience
- Duality of Data & Knowledge - Neuro-symbolic AI and Semantic Cognitive Perceptual Computing
- Smart Data from Physical, Cyber, Social and Clinical Big Data
- Augmented Personalized Health

Research Thrusts *over years*

- Knowledge-enhanced Computing: Knowledge-infusion and Knowledge-elicitation with Neural Networks (knowledge graph enhanced NLP/NLU/NLG/LLMs - explainability, interretability, safety, trust in AI) [2008 -]
- AI and Big Data: Smart Data, Web 3.0: semantic enhanced exploitation of diverse text (social data, clinical big data), semantic social web, semantic sensor web/networking [2004 -]
- Semantic Web and Semantic Applications including search, browsing, analysis, personalization, advertisement; ontology/knowledge graph building and their applications [1993-]
- Transactional/distributed workflows, multidatabase consistency/coordination [1990-2005]
- Federated databases and data integration, semantic interoperability and integration, AI/DB integration [1986-1996]

Key application domains for translational research: health care/clinical/epidemiology/public health, biomedical, social good (human/social/economic development, crisis coordination, toxicity), smart manufacturing, financial, defense and intelligence, materials genomics, etc.

Recognition, Outstanding Achievements and (partial list of) Honorary Appointments

1. **IEEE Computer Society W. Wallace McDowell Award** “for pioneering and enduring contributions to information integration, data and service semantics, and knowledge-enhanced computing,” 2023. [Univ News Interview Profile Video](#)
2. 2021 IEEE Internet Computing, Best Paper Award for “Semantics of the Black-Box: Can Knowledge Graphs Help Make Deep Learning Systems More Interpretable and Explainable?” by Manas Gaur, Keyur Faldu and Amit Sheth. [Photo](#)
3. **ACM Fellow**, elected by the Association for Computing Machinery “for contributions to data semantics and knowledge-enhanced computing”, 2020. [ACM Profile Univ News](#)
4. **IEEE TCSVC Research Innovation Award**, “in recognition of his pioneering and enduring research, applications and adoption of distributed workflow processes and semantics in services computing,” 2020. [IEEE Page Univ Announcement](#)

5. Semantic Web Science Association/Intl Semantic Web Conf 10 year award for paper: Jain et al "Ontology Alignment for Linked Open Data", 2010 proceedings/2020 award. [Announcement](#)
6. Member, [Scientific Advisory Group, NDEWS](#) (NIDA's National Drug Early Warning System) Coordinating Center, June 2020 - .
7. **Distinguished Alumni Award for Academic Excellence**, Franklin College of Art & Science, The Ohio State University, 2019. [OSU Announcement](#) [Description](#) [Award Photo](#)
8. **AAAS Fellow** elected by the American Association for the Advancement of Sciences "for pioneering and enduring contributions on information integration, distributed workflow, and semantics and knowledge-based big data analytics." [Class of 2018](#). [University News](#)
9. **AAAI Fellow** elected by the Association for the Advancement of Artificial Intelligence "for significant and enduring contributions to semantics and knowledge based techniques to transform diverse data into insights and actions." [Class of 2018](#). [Univ Media/News Award](#)
10. **Mid2023: H-index=117 and over 56,000 citations**; 2022 (research.com) **Ranking of Computer Scientists: top 50 in USA, top 80 in the world**; 2018 Ranking of Top Computer Scientists (<http://bit.ly/topCS100>); placed among top 100 Computer Scientists worldwide by h-index for 2015, 2016, 2017, 2018; placed top few among top authors in World Wide Web (10-year impact) and placed 20th among top authors in databases (impact for all years).
11. Steering Committee, Web Intelligence Consortium, Dec 2018 -- .
12. **Technology Commercialization Award** (runner up), **Ohio Faculty Council, 13 Nov 2017**. The honor recognizes faculty members in the state university system in Ohio for exceptional research discoveries and the role they have played in supporting the translation of those discoveries into marketable products and/or services.
13. **Academic Council** (senate), LNM-IIT, Jaipur, India, October 2017 – 2021.
14. **Advisory Board/Scientific Advisory Board** – Brain Health Alliance, 2014 – present. Center for Cyber-Physical Systems (C2PS), Khalifa University, UAE, October 2018 – 2022. National Drug Early Warning System (NIDA): 2020- present.
15. **Trustee's Award** for Faculty Excellence, 2010 Wright State University. This is the **highest award given by the university**. The annual award honors those who serve as the most outstanding of role models for all faculty.
16. **IEEE Fellow** elected by IEEE Board of Directors with citation "for contributions to information integration and workflow management." Class of 2006.
17. As the Kno.e.sis Center's Director, on Feb. 19, 2010 Ted Strickland, then Governor of Ohio, and Eric Fingerhut, Chancellor of the Ohio Board of Regents, recognized the center as a "Center of Excellence."
18. International Scientific Advisory Committee (BISCSE 2005): Forging New Frontiers, 40th of Fuzzy Pioneers (1965–2005), Berkeley CA, Nov. 2–6, 2005.
19. 2004 IBM Faculty Award, Mar. 2004.
20. UGA Career Center Recognition/Award, Sept. 2002. Awarded based on post-graduation student surveys for "greatly contributing to the career development of UGA students."
21. Advisory Board, Coca-Cola Center for Marketing Studies, Terry College of Business, 2002–2003.
22. International Advisory Board, Internet Information Retrieval Research Center (IRC), Hankuk Aviation University, Korea, 2001–2002.
23. Board of Directors, Healthcare Open Systems & Trials (HOST) Consortium, 1995–1999.
24. Member of the two-person International Advisory Board, TARA Project, University of Tsukuba, Japan. 1994–1996.
25. Selected and served as an ACM Lecturer, 1991–1992. Again for 1992–1993.

26. Outstanding Paper Award (co-author), *7th International Conference on Data Engineering*, Kobe, Japan, Apr. 1991.
27. Six Recognition of Service Awards/Certificates of Appreciation: from *IEEE Technical Committee on Data Engineering* and the *IEEE Computer Society* (1989, 1990, 1991, 1992), from *IEEE Technical Community on Services Computing* (2004), from *ACM* (1993).
28. Citation for contributions to Bellcore for conceiving, developing, and prototyping the flexible transactional workflow technology, and business opportunity development (1993). Also a recipient of Bellcore's Vice President Team Award for Outstanding Contribution, Nov. 1993, and the Bellcore Achievement Award, 1989.
29. Board of Advisors, Indiana Center for Database Systems, 1991–1993.
30. Award from the Federal Computer Conference in recognition of contributions, Apr. 1989.
31. Best Paper Award (co-author) Computer Networking Symposium, 1984.
32. National Merit Scholar, Government of India, 1975.

Research Funding / Grants (> \$33M basic research, >>6M tech commercialization) [50+]

Federal and other standard Research Awards:

Role Principal Investigator, unless indicated otherwise

NSF and NIH grant list at Grantome

1. Approx. \$1.5M in verbally awarded/approved contracts/grants; under contract negotiation/paperwork.
2. **EAGER: Knowledge-guided neurosymbolic AI with guardrails for safe virtual health assistants**, NSF Award #: 2335967, 10/2023 - 09/2025, \$200,000.
3. **AI/ML-Readiness for Neuroimaging of Language, National Institutes of Health**, NIH (supplement on parent R01 led by Dr. Rutvik Desai), AIISC: \$287,300, Oct. 1, 2021 – September 30, 2023.
4. **NSF Convergence Accelerator Track F: Actionable Sensemaking Tools for Curating and Authenticating Information in the Presence of Misinformation during Crises**, NSF Award Number: 2137806, \$749,999 (AIISC: \$150,000), PI: Parthasarthy (OSU), CoPI/USC PI: Sheth, \$139,999. Oct 1, 2021 – Sept 30, 2023.
5. **RII Track 2 FEC: Enabling Factory to Factory (F2F) Networking for Future Manufacturing**, NSF Award# 2119654, PI Ramy Harik 3,832,326, (coPI: Amit Sheth: AIISC budget: \$739,239, October 1, 2021 – September 30, 2025.
6. **EAGER: Advancing Neuro-symbolic AI with Deep Knowledge-infused Learning**, NSF Award#: 2133842, \$139,000. 07/ 2021 – 06/2024.
7. **PERCURO (Knowledge Graphs and knowledge-infused learning for Pharma)**, Consortium sponsored by WIPRO, AIISC: \$526,965, July 1, 2021 – June 30, 2024.
8. **Enabling Factory to Factory (F2F) Networking for Future Manufacturing across South Carolina**, SC Research Authority, PI: Amt Sheth, coPI/PD: Ramy Harik, \$1,199,944 (total), July 1, 2021 – May 31, 2024.
9. **Proactive and Automated Material Control -- BMW**, State of South Carolina and BMW, \$239,809, June 1, 2021 – August 30, 2022.
10. **NSF Convergence Accelerator: Symposium on Big Data and AI-Driven Disaster Management for Planning, Response, Recovery, and Resiliency**, NSF Award #956285, \$99,604, Feb 2020 – Jan 2021.
11. **Spokes: MEDIUM: MIDWEST: Collaborative: Community-Driven Data Engineering for Substance Abuse Prevention in the Rural Midwest**, NSF Award# 1761931, \$120,000, Sept 2018 – Aug 2022.

12. **eDarkTrends: Monitoring Cryptomarkets to Identify Emerging Trends of Illicit Synthetic Opioids Use**, NIH, \$223,715, Jul. 2017 - May 2020. PIs: Francois Lamy and Amit Sheth.
13. **SCH: kHealth: Semantic Multisensory Mobile Approach to Personalized Asthma Care**, NIH: 1R01 HD087132-01, \$991,804, Jul. 2016 - Jun. 2020. PI: Amit Sheth. Co-PIs: Sherman Alter and T.K. Prasad.
14. **Modeling Social Behavior for Healthcare Utilization in Depression**, NIMH/NIH: 1R01MH105384-01A1, \$2,195,362 (WSU: \$505,602), Mar. 3, 2016 - Jun. 30, 2020. Joint PIs: Jyotishman Pathak (Cornell University) and Amit Sheth. Co-PI: T.K. Prasad.
15. **Maximizing the Collective Intelligence of a Network Using Novel Measures of Socio-Cognitive Diversity**, ARO, \$249,034, May. 6, 2016 - Feb. 15, 2017. PI: Minnery; Co-PI: Amit Sheth.
16. **III: Travel Fellowships for Students from U.S. Universities to Attend ISWC 2016**, NSF, \$30,000, Mar. 1, 2016 - Feb. 28, 2017. **PFI: AIR-TT: Market-driven Innovations and Scaling Up of Twitris – A System for Collective Social Intelligence**, NSF, \$200,000 + \$24,000 (REU), Oct. 1, 2015 - Mar. 31, 2017. Co-I: John Mackay.
17. **NIDA National Early Warning System Network (iN3): An Innovative Approach**, NIDA/NIH: R56DA038366 -01, \$299,741, Jul. 2014 - Aug. 2015. Principal Investigators in a multi-PI grant: Robert Carlson, Amit Sheth, Ed Boyer (U. Mass).
18. **Software and Hardware Infrastructure for Energy-efficient, Large-scale Complex Language Modeling**, DoD, AFOSR, \$492,500, Aug. 30, 2013 - Aug. 29, 2014. PI: Shaojun Wang. Co-PIs: Amit Sheth, Keke Chen, and Junjie Zhang.
19. **Towards Commercialization of Twitris – A system for collective intelligence**, NSF: I-Corp, \$50,000, Jul. 1, 2013 - Jun. 30, 2014.
20. **Materials Database Knowledge Discovery and Data Mining**, Air Force Research Labs, \$190,000. Co-PIs: T.K. Prasad, Raghu Srinivasan.
21. **LVC Sensors Integration for Data Fusion in Operations and Training**, Air Force Research Lab through Ball Aerospace, \$306,000, Oct. 15, 2010 - Oct. 14, 2013.
22. **EAGER: Expressive Scalable Querying over Linked Open Data**. National Science Foundation (IIS-1143717), \$125,828, Sept. 2011 - Aug. 2013. Supplement granted: \$16,000. Co-PI: Pascal Hitzler.
23. **TWC SBE: Medium: Context-Aware Harassment Detection on Social Media**, NSF: CNS-1513721, \$925,104 + \$32,000 (REU), Sept. 1, 2015 - Aug. 31, 2018. PI: Amit Sheth. Co-PIs: Valerie Shalin and T.K. Prasad .
24. **Medical Information Decision Assistance and Support**, DoD SBIR/STTR, \$25,000, Jul. 6, 2015 - Mar. 30, 2016. PI: T.K. Prasad. Co-PI: Amit Sheth.
25. **Hazards SEES: Social and Physical Sensing Enabled Decision Support for Disaster Management and Response**, NSF, \$2,000,000 (WSU: \$787,500), Jul. 1, 2015 - Jul. 31, 2019. PIs: Srinivasan Parthasarathy (OSU, project) and Amit Sheth (WSU). Co-PIs: Ethan Kubatko (OSU), Densheng Liu (OSU), Valerie Shalin, and T.K. Prasad.
26. **Semantic Web-based Data Exchange and Interoperability for OEM-Supplier Collaboration**, Pratt & Whitney, \$89,736, Jul. 1, 2015 - Sept. 30, 2015. PI: T.K. Prasad. Co-PI: Amit Sheth.
27. **Cardiology Semantic Analysis System**, ezDI, \$150,000, Jun. 2, 2014 - Jun. 1, 2015. PI: Amit Sheth.
28. **Trending Social Media Analysis to Monitor Cannabis and Synthetic Cannabinoid Use**, NIDA/NIH: 5R01DA039454-02, \$1,689,019, Aug. 14, 2014 - Aug. 14, 2017; Principal Investigators in a multi-PI grant: Raminta Daniulaityte and Amit Sheth; Co-Investigators: Robert Carlson, T.K. Prasad, Ramzi Nahhas, Sylvia Martins (Columbia), and Edward W. Boyer (U. Mass.).

29. **SemMat: Federated Semantic Services Platform for Materials Science and Engineering**, Air Force Research Labs, \$298,028, starting Jun. 1, 2013 - Dec. 31, 2015. PI: Amit Sheth. Co-PIs: T.K. Prasad, Raghu Srinivasan. **A Study of Social Web Data on Buprenorphine Abuse Using Semantic Web Technology**, Department of Health and Human Services, National Institute on Drug Abuse (NIDA), \$220,812, Jul. 2011 - Jun. 2014. PIs in a multi-PI grant: Raminta Daniulaityte and Amit Sheth. Co-PIs: Robert Carlson and Russel Falck.
30. **Trusted Semantic Sensor Web to Support Decision making over Massive Amounts of Sensor and Social Data**, Air Force Research Labs—Sensor Directorate (via Prime: Riverside Research), \$149,276.30, Jun. 2011 - Jan. 2013. Co-PI: T.K. Prasad.
31. **Semantics and Services Enabled Problem Solving Environment for Trypanosoma cruzi**, NHLBI/NIH: 1R01HL087795-01A1, \$1,515,656, May 2008 - Mar. 2013. PI: Amit Sheth. Co-PIs: Rick Tarleton (UGA), Mark Musen (Stanford), Natasha Noy (Stanford), Prashant Doshi (UGA).
32. **SoCS: Collaborative Research: Social Media Enhanced Organizational Sensemaking in Emergency Response**, National Science Foundation, \$480,000, Sept. 2011 - Aug. 2015. REU Supplement: \$16,000. Principal Investigators in a multi-PI grant: Amit Sheth (Wright St U) and Srinivasan Parthasarathy (OSU). Co-PIs: Valerie Shalin and John Flach.
33. **ARRA: Semantics and Services Enabled Problem Solving Environment for Trypanosoma cruzi**, NHLBI-DHHS, \$182,786. Jul. 2009 - Jun. 2011. Principal Investigator: Priti Parikh.
34. Undisclosed Sponsor, **Trusted Semantic Sensor Network—Phase I**, \$28,890, Jul. 2010 - Aug. 2011.
35. **Ontology and Semantic-Aided Human Cognition Knowledge Discovery**, Air Force Research Lab's Human Effectiveness Directorate, WPAFB, \$400,000, Jun. 1, 2008 - Mar. 31, 2009.
36. **Information Operations/Cyber Exploitation Research (ICER)**, Air Force Research Lab - Sensor Directorate (via Prime: Woolpert), \$148,402, Jul. 2010 - Dec. 2010.
37. **Spatio-Temporal-Thematic Queries of Semantic Web Data: A Study of Expressivity and Efficiency**, National Science Foundation, \$146,952, Aug. 2008 - Aug. 2010. PI: Amit Sheth. Co-PI: T.K. Prasad. REU supplement: \$22,960.
38. **Trusted Semantic Sensor Network**, Air Force Research Lab, \$313,093.50, Feb. 2009 - Aug. 2011. PI: Amit Sheth. Co-PI: T.K. Prasad.
39. **Education Partnership Agreement for joint work on Distributed Systems for Psychological Modeling**. 711th Human Performance Wing, Air Force Research Laboratory, \$61,000.
40. Undisclosed Sponsor, **Trusted Semantic Sensor Web**. \$126,000, Jul. 2008 - Mar. 2009. PI: Amit Sheth.
41. **Human Performance Ontology** funded by The Air Force Research Lab's Human Effectiveness Directorate, WPAFB, \$400,000, Jun. 2008 - Mar. 2009. PI: Amit Sheth. Co-PI: T.K. Prasad and Valerie Cross (Miami University).
42. **AFRL/DAGSI Ohio Student-Faculty Research Fellowship** (with matching funds from the State of Ohio), Architectures for Secure Semantic Sensor Networks for Multi-Layered Sensing (stipend plus fellowship for PhD student Cory Henson), \$87,437, Jun. 1, 2008 - May 31, 2009.

43. **Bioinformatics of Glycan Expression** (part of Integrated Technology Resource for Biomedical Glycomics, Grant No. P41 RR018502), Investigator (Computer Science Coordinator; other CS investigators: K. Kochut, J. Miller), National Institute of Health, \$709,401 (Computer Science Component), Jul. 1, 2003 - Jun. 30, 2008. (Partial funds transferred to Wright State University upon move.)
44. **SemGrid: Semantic Discovery on Adaptive Services Grid**, National Science Foundation (IIS 0545243), Oct. 15, 2005 - Dec. 31, 2007, \$100,000. PI: Amit Sheth. UGA Co-PIs: Arpinar, Kochut, and Miller.
45. **SemDis: Discovering Complex Relationships in Semantic Web**, PI of joint UGA-UMBC project: Amit Sheth. UGA Co-PIs: Arpinar, Kochut, and Miller. UMBC Co-PIs: Joshi, Finin, and Yesha. National Science Foundation (IIS-based 325464-ITR Medium Projects), \$800,000-UGA component (Project Manager of \$1,250,000 overall project with UMBC component), Jan. 2007 - Dec. 2009. REU Supplement: \$15,000.
46. **Sensor Data Management**, Principal Investigator of subcontract (subcontract to daytaOhio in Sensor-Aided Vigilance (SAVig), funded by the Air Force Research Laboratory), \$32,000, Apr. 2007 - Aug. 2007.
47. **An Ontological Approach to Financial Analysis & Monitoring**, PI: Amit Sheth. ARDA-funded project (subcontract to CTA, Inc.), \$325,000, Apr. 2005 - Sept. 2006.
48. **Semantic Association Identification and Knowledge Discovery for National Security Applications**, National Science Foundation, CISE-ITR-0219649. PI: Amit Sheth. Co-PIs: I.B. Arpinar and K. Kochut. \$200,000. REU Supplement for 2004, \$12,000, Jul. 1, 2002 - Jun. 30, 2005.
49. **Ontology, Metadata and Semantic Association Support for Semantic Agent Based Document Protection**, PI: Amit Sheth. ARDA-funded project (subcontract to CTA, Inc.), \$38,716, Nov. 2004 - February 2005.
50. **The Alexandria Digital Earth Modeling System** (Semantic Interoperability and Collaboration), UGA subcontract to UCSB, National Science Foundation-IIS-9817432, \$600,000 in federal funds, plus \$25,000 in UGARF equipment matching, Sept. 1999 - Aug. 2004. PI: Amit Sheth. Co-PI: K. Kochut,
51. **System-Level Techniques for Energy Aware Computing** (focus area: Enabling Personal Networked and Home Computing Applications with Metadata, \$27,150, Jul. 1, 2003 - Jun. 30, 2004. PI: D. Lowenthal. Co-PIs: Bhandarkar, Sheth, Li, and Waterson.
52. **Database and Information Systems Research for Semantic Web and Enterprises**, National Science Foundation (CISE-IIS-based 211606), \$15,000. EU Thematic Network OntoWeb, \$5,000. University of Georgia Foundation and CS Department, \$6,250, Apr. 1, 2002 - Mar. 31, 2003.
53. **Extending METEOR with workflow reuse, adaptation, and collaboration**, Principal Investigator, awarded by Naval Research Laboratory and ITT, \$200,000, Jan. 1, 2000 - Sept. 30, 2000.
54. **Workflow Management for Advanced DoD Applications**, Principal Investigator, awarded by Naval Research Lab/Department of Navy-N00173-98-2-LO05 (Co-Principal Investigators: K. Kochut, J. Miller), \$315,542 in federal funds, plus \$15,000 in UGARF equipment matching funds, Jul. 1, 1998 - Dec. 31, 1999.

55. **METEOR: Healthcare Information Infrastructure Program-Enterprise Workflow Automation**, Principal Investigator for University of Georgia, awarded by National Institute of Standards and Technology (NIST)-ATP initiative on Information Infrastructure for Healthcare-70ANB5H1011 (Co-Principal Investigators: K. Kochut, J. Miller), total project, \$1,674,729+: \$725,000 in federal funds over 4.5 years (3/95-2/96: \$116,364; 3/96-2/97: \$173,365; 3/97-2/98: \$188,348; 3/98-3/99: \$166,221; 3/99-8/99: \$80,701); more than \$949,727 in additional matching funds (from University of Georgia, University of Georgia Research Foundation, and industry donations; includes some of the funds listed under Industry Donations, below), Mar. 1995 - Aug. 1996.
56. **Collaborative Tele-Consulting for Healthcare (CaTCH)**, Principal investigator to South Carolina Research Authority awarded as a subcontract in HITECC funded by the NIST-ATP initiative (Co-Principal Investigators for first year: K. Kochut, J. Miller, Co-Principal Investigators for the second year: K. Kochut and K. Shah), total federal, \$166,129: \$112,480 for the first year, \$47,149 for second year (partial) (additional second year and third year funds TBD, University of Georgia Research Foundation Matching in first year \$12,500, Jun. 1996 - May 1999.
57. **InfoHarness: A Scalable System for Searching Heterogeneous Information**, Principal Investigator (of the overall project, joint project with Bellcore), awarded under the Massive Digital Data Systems initiative of the Community Management Staff, Contract no. 95-FI38400-000, over \$600,000; University of Georgia component \$197,030 (year 1: \$87,327; year 2: \$109,703) plus University of Georgia Research Foundation equipment matching grant of \$14,500, Apr. 15, 1995 - Aug. 30, 1997.
58. **NSF Workshop on Workflow and Process Automation**, Principal Investigator, awarded by the National Science Foundation (Award no. IRI-9528870, Division of Information, Robotics, and Intelligent Systems, and the Division of Computer and Computational Research), \$24,795, plus \$6,000 donation by the University of Georgia Research Foundation, Sept. 1995 - Sept. 1996.
59. **NATO Award for Advanced Study Institute on Workflow Systems and Interoperability**, Co-Director (jointly with A. Dogac, L. Kalinichenko, T. Ozsu), Istanbul, Turkey, 2,400,000 BFr (US \$76,000), Dec. 1996 - Aug. 1997.
60. Principal Investigator of research grants/contracts of over \$4 million dollars DARPA (AI/DB Integration, \$1.6m), Army Research Labs and other sources before joining UGA.

Industry/Consortia/VC Funds [Subset]

1. As cofounder of Cognovi Labs, shared primary responsibility of raising \$865,000 in seed investments in 2017, over \$3 million in commercial investments in 2018, and more than \$2 million in earlier grant investments that led to technology innovations and scaling.
2. **Homeland Security Workshop**, Principle Investigator (with Co-Principal Investigators E. Lynn Usery, I. Budak Arpinar, Xiaobai Yao), UCGIS, \$15,000, Aug. 2003–Jul. 2004.
3. Led as founder/CEO/SrVP acquisition of approximately \$5 million in Venture and commercial funding for R&D including \$2.4 million **Taalee, Series A. VC funds led by Redwood Ventures, Oct. 1999**. Over \$7million invested in local economy during university spin-off Taalee/Voquette before its acquisition/merger (1999-2002), company still operational and economic activities continue.
4. **Video Data Management System**, Principal Investigator, awarded by L G Electronics Research Center of America, \$50,004, 1998. University of Georgia Research Foundation Matching in first year \$2,500, Jan.–Dec. 1998.

State and University Funds: Role of Principal Investigator, unless indicated otherwise [13]

1. Systematic Review Assistance using Leveraging Background Knowledge and Language Models, PI: Sheth, USC College of Library, \$25,000, 08/2023 - 07/2024.
2. mhealth to Improve Carbohydrate Counting Accuracy in Pediatric Type 1 Diabetes, PI: Lisa Knight, coPI: Amit Sheth, \$100,000 (total), USC-ASPIRE, 07/2021 - 09/2022.
3. Proactive and Automated Material Control -- BMW, PI: Abdel Bayoumi, coPI: Amit Sheth (AIISC budget: \$239,809), 06/2021 - 09/2022.
4. Exploring patients' use of mobile health applications to manage multiple chronic conditions: A qualitative study, Sara Donevant – PI, AIISC lead/coPI: Amit Sheth, copPI: Robin Dawson, USC ASPIRE, \$100,000, Feb 1, 2020 – Jan 31, 2021.
5. Development of an Instrumented, Intelligent Infant Interaction Laboratory for the Prediction of Autism Spectrum Disorder, AIISC Lead: Amit Sheth (\$40,000), PI: Jessica Bradshaw (Dept of Psychology/Neuroscience), Funded by USCAND, 05/2020 - 09/2021.
6. **Westwood Partnership to Prevent Juvenile Repeat Violent Offenders**, Ohio Office of Criminal Justice Services, \$140,000, Jan. 1, 2015 – Sept. 30, 2017. PI: Amit Sheth. Co-PIs: Derek Doran and Jack Dustin.
7. **kHealth enabled health Monitoring, Epidemiology & Public Health Research**, Office of Vice President for Research, \$40,000, Jun. 17, 2003-Dec. 31, 2014. **Twitris- a system for collective intelligence**, National Science Foundation, \$30,000, \$50,000, Jul. 2013.
8. **Advanced Data Management Tuition**, Wright State University Graduate School, \$126,000, Jan. 2007-Jun. 30, 2013. **Center of Excellence Knowledge Operating Award**, Wright State University, \$330,000, Jul. 2010-Jun. 2013.
9. **A Study of Social Web Data on Oxycontin Abuse Using Semantic Web Technology**, Wright State University Boonshoft School of Medicine Department of Community Health, \$13,950, Apr. 2, 2011-Dec. 31, 2011. **Education Partnership Agreement between Wright State and Wright Patterson Air Force Base**, 711th Human Performance Wing, Air Force Research Laboratory \$61,000.
10. **Cloud Computing Collaboratory**, Wright State University, \$48,000, Co-Principal Investigators: J. Gallagher, K. Chen, Y. Pei, M. Raymer, TK Prasad, B. Wang, M. Rizki, S. Wang, P. Mateti, M. Liu.

Earlier items in this list are removed for brevity.

Competitive Awards, Sponsored Research and Industry Cash Gifts [18]

1. Clark Scholarship to promote females to pursue Ph.D. in AI, \$100,000, 2022.
2. Bosch gift, \$50,000, 2021.
3. ezDI.com gift, \$5,000, 2019. \$25,000, 2021.
4. **Employee and Job Search Semantic Engine: Phase I**, Universal Freelancer, \$30,000, 01/2016.
5. **2015-2016 George Thomas Fellowship**, Health Data Consortium, \$10,500, 08/2015; awarded to Sujana Perera.
6. **Cardiology Semantic Analysis System**, ezdataintelligence (ezDI) LLC, \$100,000, (\$25,000 in 2011, renewed: 2012, 2013, and 2014 at the same level).
7. **Janya, Inc.**, \$25,150. “Enhancing Information Extraction with Linked Open Data.” Apr., 2011.
8. **Department of Community Health**, \$30,000. “A Study of Social Web Data on Oxycontin Abuse Using Semantic Web Technology.” Jan., 2011.
9. **Microsoft**, \$75,000 unrestricted gift, Jul., 2010.

10. **Hewlett Packard**, \$45,000 for “Model Generation and Model Extension for Information and Knowledge Management.” Competitive Research Excellence Award, Jun., 2010.
11. **Competitive Award, Microsoft Research**, \$60,000 for “Chatter, Intent, Good Karma, and Contextual Advertisements in Social Networks.” Feb. 2008.
12. **Competitive Award, IBM UIMA Innovation Award**, \$23,000 for “UIMA-based Infrastructure for Summarizing Casual, Unstructured Text.” Nov. 2007.
13. **Gift from HP Research, \$50,000**, for research in unstructured text extraction, starting Jan. 2008.

Earlier items in this list are removed for brevity.

Industry Donations Received (Totals More Than \$650,000) [10]

1. Microsoft Windows Azure Cloud-free access for the Kno.e.sis Center, Mar. 2011.
2. Semagix Freedom, \$255,000, 2005.
3. Microsoft Research, donation of all requested software and training for Computer Science department (to support teaching) and LSDIS lab (for use in research), 1999.
4. Informix Universal Server and other software (first receipt of grant program), Informix, \$120,000, since Apr. 1997. Renewed in 1998 and 1999.

Earlier items in this list are removed for brevity.

Speeches and Talks (to add: ~10 keynotes: 2021-2023)

Keynote and Plenary Invited Talks [~100]: International Conferences/Workshops and Significant International/National Meetings

1. “Knowledge Graphs and their central role in big data processing: Past, Present, and Future,” Keynote at CODS-COMAD 2020, Hyderabad, India, 06 Jan 2020.
2. “Understanding Online Socials Harm: Examples of Harassment and Radicalization,” 33rd Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec'19), Charleston, SC, USA - July 15-17, 2019
3. “On Exploiting Multimodal Information for Machine Intelligence and Natural Interactions with examples from Health Chatbots.” Keynote at the 2nd Intl Workshop in Multimedia Pragmatics – MMPrag 2019, San Jose CA 28-30 March 2019.
4. “Towards Smart Chatbots for Enhanced Health: Using Multisensory Sensing & Semantic-Cognitive-Perceptual Computing for Augmented Personalized Health.” The 2nd AAAI Workshop on Reasoning and Learning for Human-Machine Dialogues at the 33rd AAAI (AAAI-19), Jan 27, 2019, Hawaii, USA
5. “Augmented Personalized Healthcare for Patient Empowered Health Management Strategies.” Keynote at the Digital Wellbeing Alliance inauguration workshop, IIT Madras, Chennai, India, 4 July 2018.[Video](#)
6. Human-like Chatbots: Promises, Challenges, and Implications, Keynote at the ICWSM-2018 workshop on Chatbots: June 25, 2018, Palo Alto, CA.
7. “Transforming Social Big Data into Timely Decisions and Actions for Crisis Mitigation and Coordination,” Exploitation of Social Media for Emergency Relief and Preparedness (SMERP) at The Web Conference 2018 (formerly WWW), Lyon, France. 23 April 2018.
8. “Augmented Personalized Health: using AI techniques on semantically integrated multimodal data for patient empowered health management strategies,” Keynote at 2018 AAAI Joint Workshop on Health Intelligence (W3PHIAI 2018), 2 February 2018, New Orleans, LA

9. [“Augmented Personalized Health: How Smart Data with IoTs and AI is about to Change Healthcare,”](#) at Big Data Integration and IoT for Smart Healthcare at the RTSI 2017 – 3^o International Forum on Research and Technologies for Society and Industry, Modena, Italy, 13 September 2017.
10. [“Knowledge will Propel Machine Understanding of Big Data,”](#) [China Conference on Knowledge Graph and Semantic Computing \(CCKS2017\)](#), 29 August 2017, Chengdu, China.[\[PDF\]](#)
11. “Semantic, Cognitive, and Perceptual Computing – three intertwined strands of a golden braid of intelligent computing,” Keynote at the [2017 IEEE/WIC/ACM International Conference on Web Intelligence\(WI'17\)](#), 24 Aug 2017, Leipzig, Germany.
12. Transforming Social Big Data into Timely Decisions and Actions, Keynote at the [International Workshop on Social Computing \(IWSC 2017\)](#), co-organized with WWW2017, Perth, Australia, April 4, 2017.
13. [Semantic, Cognitive and Perceptual Computing – Three Intertwined Strands of a Golden Braid of Intelligent Computing](#), Keynote at the International Summer School on Web Science and Technology (WebST2016), Bilbao, Spain, July 19, 2016.
14. Semantics-empowered Smart City applications: today and tomorrow. The 6th Workshop on Semantics for Smarter Cities ([S4SC 2015](#)) at ISWC, Oct. 12, 2015, Bethlehem, PA.
15. Smart Data - How you and I will exploit Big Data for personalized digital health and many other activities. Keynote at *IEEE Big Data 2014*. Bethesda, MD, Oct. 28, 2014 ([Abstract](#), [Slides](#)).
16. [Semantic Technologies for Big Sciences including Astrophysics](#). Plenary talk at *EarthCube End-User Workshop* on Science-Driven Cyberinfrastructure Needs in Solar-Terrestrial Research, NJIT. New Jersey, NJ, Aug. 13-14, 2014.
17. Smart Data for you and me: Personalized and Actionable Physical Cyber Social Big Data. Featured Keynote at *WORLDCOMP '14 - The 2014 World Congress in Computer Science, Computer Engineering, and Applied Computing*. Las Vegas, NV, Jul. 21, 2014 ([Abstract](#), [Video](#), [Slides](#), [Pictures](#)).
18. Transforming Big Data into Smart Data: Deriving Value via Harnessing Volume, Variety, and Velocity Using Semantic Techniques and Technologies. Keynote at *30th IEEE International Conference on Data Engineering*, Chicago, Illinois, Apr. 2, 2014 ([Announcement](#), [Presentation](#)).
19. [Transforming Big Data into Smart Data: Deriving Value via harnessing Volume, Variety and Velocity using semantics and Semantic Web](#). Keynote at *SEBD2013: 21st Italian Symposium on Advanced Database Systems*. Jun. 30 - Jul. 3 2013, Roccella Jonica, Italy.
20. [Physical Cyber Social Computing: An early 21st century approach to Computing for Human Experience](#). Keynote at *WiMS2013: International Conference on Web Intelligence, Mining and Semantics*. Jun. 12-14, 2013, Madrid, Spain.
21. [Computing for Human Experience: Semantics empowered Cyber-Physical, Social and Ubiquitous Computing beyond the Web](#). Keynote at *OnTheMove Federated Conferences & Workshops (OTM 2011)*. Crete, Greece, Oct. 17-21, 2011.
22. [Spatial Semantics for Better Interoperability and Analysis: Challenges and Experiences in Building Semantically Rich Applications in Web 3.0](#). Keynote at 3rd Annual Spatial Ontology Community of Practice Workshop (SoCoP 2010), in conjunction with USGSReston, VA, Dec. 3, 2010.
23. Semantic Web, Powering Intelligent Web Applications. Luncheon Keynote at [Technology First's Technology Landscape 2013](#). May 16, 2010, Dayton, Ohio
24. [Computing for Human Experience: Semantics empowered Sensors, Services, and Social Computing on Ubiquitous Web](#). Keynote at *4th International Conference on Digital Information Management (ICDIM 2009)*. Ann Arbor, Michigan, Nov. 1-4, 2009.

25. [Computing for Human Experience: Semantics empowered Sensors, Services, and Social Computing on ubiquitous Web](#). Keynote at *4th European Conference on Smart Sensing and Context (EuroSSC 2009)*. Guildford, United Kingdom, Sept. 16-18, 2009.
26. [Extending SPARQL to Support Spatially and Temporally Related Information](#). Keynote at *Semantic Technology Conference*. San Jose, CA, Jun. 16, 2009.
27. [Computing for Human Experience: Sensing, Perception, Semantics, Social Computing, Web 3.0, and beyond](#). Keynote at *20th Midwest Artificial Intelligence and Cognitive Science Conference (>MAICS 2009)*. Fort Wayne, Indiana, Apr. 18-19, 2009.
28. [Computing for Human Experience: Sensors, Perception, Semantics, Web N.O, and Beyond](#). Keynote at *3rd Asian Semantic Web Conference (ASWC 2008)*. Bangkok, Thailand, Feb. 2-5, 2009.
29. [Relationship Web: Trailblazing, Analytics and Computing for Human Experience](#). Keynote at *27th International Conference on Conceptual Modeling (ER 2008)*. Barcelona, Spain, Oct. 20-23, 2008.
30. [Semantics to Empower Services Science: Using Semantics at Middleware, Web Services and Business Levels](#). CSIRO. Canberra, Australia, Aug. 11, 2008.
31. [Empowering Translational Research using Semantic Web Technologies](#). Plenary invited talk at the *Ohio Collaborative Conference on Bioinformatics (OCCBIO)*. Toledo, OH Jun. 2-4, 2008.
32. [Semantic Web for Health Care and Biomedical Informatics](#). Keynote at *NSF Biomedical Informatics Workshop: Expanding Secondary Use of Health Data*. Dec. 4-5, 2007.
33. [Semantic Web techniques empower perception and comprehension in Cyber Situational Awareness?](#) Invited talk at the *ARO Cyber Situational Awareness Workshop*. Fairfax, VA, Nov. 14-15, 2007.
34. [Realizing the Relationship Web: Morphing information access on the Web from today's document and entity-centric paradigm to a relationship-centric paradigm](#). Keynote at *ACM Multimedia 2007 International Workshop: The Many Faces of Multimedia Semantics*. Augsburg, Germany, Sept. 28, 2007.
35. [Semantics to Empower Services Science: Using Semantics at Middleware, Web Services and Business Levels](#). Keynote at *9th International Conference on Enterprise Information Systems (ICEIS2007)*. Funchal, Portugal, Jun. 12-16, 2007.
36. [Driving Deep Semantics in Middleware and Networks: What, why and how?](#) Keynote at *Semantic Sensor Networks Workshop, 5th International Semantic Web Conference (ISWC-2006)*. Athens, GA, Nov. 6, 2006.
37. [{Ontology: Resource} x {Matching : Mapping} x {Schema : Instance} :: Components of the same challenge](#). Keynote at Intl Workshop on Ontology Matching (OM-2006), 5th International Semantic Web Conference (ISWC-2006). Athens, GA, Nov. 5, 2006.
38. [Semantics to energize the full Services Spectrum: Ontological approach to better exploit services at technical and business levels](#). Keynote Address at *2nd Biennial Beta Conference, 2006: Management of Service Operations*. Eindhoven, Netherlands, Sept. 14-15, 2006.
39. [Semantics to energize the full Services Spectrum: Ontological approach to better exploit services at technical and business levels](#). Invited Talk for inauguration invitational event for Research School on Service-Oriented Systems Engineering, Hasso-Plattner-Institute. Potsdam, Germany, Jun. 22, 2006.
40. [Semantic Web applications in Financial Industry, Government, Health Care and Life Sciences](#), Keynote Address at *AAAI Spring Symposium on Semantic Web Meets eGovernment*. Stanford University, Palo Alto, CA, Mar. 28, 2006.
41. [Semantics Enabled Industrial and Scientific Applications: Research, Technology and Deployed Applications](#). Keynote Address at *1st Online Metadata and Semantic Research Conference*. Nov. 21-30, 2005.

42. [Semantics for Scientific Experiments and the Web: the implicit, the formal and the powerful](#). Featured talk, *BISCSE 2005: Forging New Frontiers*. Berkeley CA, Nov. 2-6,
 43. [Semantic Web Applications in Industry: Examples in Risk & Compliance](#). Part I. [Semantic Web & Semantic Web Services: Applications in Health Care and Scientific Research](#). Part II. Keynote at *IFIP Working Conference on Industrial Applications of Semantic Web (IASW-2005)*. Jyväskylä, Finland, Aug. 25-27, 2005.
 44. [Web Services to Semantic Web Processes: Investigating Synergy between Practice and Research](#). Keynote at *1st European Young Researchers Workshop on ServiceOriented Computing*. Leicester, UK, Apr. 21, 2005 ([Abstract](#), [Presentation](#)).
 45. [Semantics Powered Bioinformatics: Semantic Search, Integration, Processes and Analytics](#), Plenary Invited Talk at *2003 BISC FLINT-CIBI International Joint Workshop on Soft Computing for Internet and Bioinformatics*. Berkeley, CA, Dec. 16, 2003.
 46. [What can Semantics do for Bioinformatics?](#) Keynote at *Russian Conference on Digital Libraries (RCDL 2003)*, Saint Petersburg, Russia, Oct. 29, 2003.
 47. [Semantics-Powered Bioinformatics: What, Why and How of Semantic Search, Integration, Processes and Analytics](#). Invited Talk at *Semantic Web Technologies for Science and Engineering Workshop*. Sanibel Island, FL, Oct. 20, 2003.
 48. [Semantic Web in Action \(Also Known as Ontology-driven Information Search, Integration and Analysis\)](#). Keynote Address at *Net Object Days 2003 and MATESo3*. Erfurt, Germany, Sept. 23, 2003.
 49. [From Semantic Search to Analytics and Discovery on Heterogeneous Content: Changing focus from Documents and Entities to Relationships](#). Keynote at *1st International Workshop on Semantic Web and Databases*, Sept. 8, 2003.
 50. [Semantic Web Process Lifecycle: Role of Semantics in Annotation, Discovery, Composition and Orchestration](#). Invited Talk, *WWW 2003 Workshop on E-Services and the Semantic Web*. Budapest, Hungary, May 20, 2003.
 51. [Ontology Driven Information Systems in Action \(Capturing and Applying Existing Knowledge to Semantic Applications\)](#). Invited Talk, *Sharing the Knowledge-International CIDOC CRM Symposium*. Washington, DC, Mar. 26-27, 2003.
 52. [Relationships at the Heart of Semantic Web: Modeling, Discovering, Validating and Exploiting Complex Semantic Relationship](#). Keynote at *29th Annual Conference on Current Trends in Theory and Practice of Informatics (SOFSEM 2002)*. Czech Republic, Nov. 25, 2002.
 53. Semantic Content Management for Enterprises and National Security. Keynote Address at Content and Semantic-based Information Retrieval, *6th World Multi-conference on Systemics, Cybernetics, and Informatics (SCI 2002)*. Orlando, FL, Jul. 14, 2002.
 54. Content Management, Metadata, and Semantic Web. Inaugural Keynote at *NetObjectDAYS*. Erfurt, Germany, Sept. 11, 2001.
 55. [Semantic Web and Information Brokering: Opportunities, Early Commercialization, and Challenges](#). Keynote at *Workshop on Semantic Web: Models, Architectures and Management*. Lisbon, Portugal, Sept. 21, 2000
- Earlier items in this list are removed for brevity.*

Conference and Workshop Invited Talks [~50]

1. "kHealth: Semantic Multi-sensory Mobile Approach to Personalized Asthma Care," P7: A New Paradigm for Health Care in the 21st Century Scientific Session at AAAS2019 Annual Meeting, 15 February 2019, Washinton, DC.
2. "Big Data and Smart Cities." Dunedin City Council. Dunedin, New Zealand. Apr. 29, 2015.

3. "Transforming Big Data into Smart Data: Deriving Value via Harnessing Volume, Variety, & Velocity using Semantics and Semantic Web." Computer & Information Science Seminars. University of Otago. Dunedin, New Zealand. Mar. 27, 2015.
4. "Citizen Sensor Data Mining, Social Media Analytics and Applications." *iTrust Seminar Series: Transforming Big Data into Smart Data*. Singapore University of Technology and Design. Mar. 3, 2015.
5. "Semantics of Perception: Towards a Semantic Web Approach to Machine Perception." Invited talk given at the *Dagstuhl Seminar on Cognitive Approaches for the Semantic Web*. Schloss Dagstuhl, May 28 – Jun. 01, 2012.
6. "Citizen Sensing Opportunities and Challenges in Mining Social Signals and Perceptions." 2011 Microsoft Research Faculty Summit. Redmond, WA, Jul. 18-20, 2011. (PPT, PDF).
7. "Active Perception Over Machine and Citizen Sensing." 2011 Semantic Technology Conference (SemTech). San Francisco, CA, Jun. 7, 2011. [with Cory Henson]
8. "How To Make Linked Data More than Data." 2010 Semantic Technology Conference (SemTech2010). San Francisco, CA, Jun. 21-25, 2010.
9. "Semantics empowered Understanding, Analysis and Mining of Nontraditional and Unstructured Data." *AFRL Data Mining Seminar*, Aug. 2009.
10. "Monetizing User Activity on Social Networks-Challenges and Experiences," with M. Nagarajan, K. Baid, and S. Wang, *Beyond Search-Semantic Computing and Internet Economics 2009 Workshop*. Redmond, Washington, Jun. 10, 2009.

Earlier items in this list are removed for brevity.

Invited and Colloquia Talks [~150], Major Guest Lectures [15+]: Details removed for brevity.

Talks at numerous seminar series and at top venues, such as: USC-ISI (AI Seminar Series; Mar 2023), NCSU (distinguished lecture series), Stanford (Computer Science), CERN,

Tutorial Presentations at International Conferences [35+]

1. H. Al-Olimat, A. Yazdavar, K. Thirunarayan, A. Sheth, Location Extraction and Georeferencing in Social Media: Challenges, Techniques, and Applications, 15th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2018), Rochester NY, USA May 20 - 23, 2018
2. N. Aggarwal, S. Shekarpour, S. Bhatia, A. Sheth. "Knowledge Graphs: In Theory and Practice," 2017 CIKM Intl Conf on Information and Knowledge Management, Singapore, 10 Nov 2017.
3. E. Della Valle, A. Sheth, R. Tommasini, P. Anantharam, P. Kapanipathi. "Semantic Approach to Big Data and Event Processing," Short Course at the Ohio Center of Excellence in Knowledge-enabled Computing (Kno.e.sis), Wright State University, Dayton, USA. Oct 6-8, 2015.
4. A. Sheth, H. Purohit, P. Meier, and C. Castillo. "Crisis Mapping, Citizen Sensing and Social Media Analytics: Leveraging Citizen Roles for Crisis Response." *7th International Conference on Weblogs and Social Media (ICWSM-13)*. Boston, MA, Jul. 2013.
5. A. Sheth, P. Anantharam, P. Barnaghi. "Data Processing and Semantics for Advanced Internet of Things (IoT) Applications: modeling, annotation, integration, and perception." *WiMS2013: International Conference on Web Intelligence, Mining and Semantics*. Madrid, Spain, Jun. 12-14, 2013.

6. A. Sheth, K. Thirunarayan, P. Anantharam, C. Henson. "Trust Networks." *2012 International Conference on Collaboration Technologies and systems (CTS 2012)*. Denver Colorado, May 21-25, 2012.
7. A. Sheth, S. S. Sahoo, G. Zhang. "Role of Semantic Web in Health Informatics." *2012 ACM SIGHIT International Health Informatics Symposium (IHI 2012)*, Jan. 28-30, 2012.
8. A. Sheth, K. Gomadam, S. Velmurgan. "Citizen Sensing, Social Media Analytics, and Applications." *2011 Semantic Technology Conference (SemTech)*. San Francisco, CA, Jun. 6, 2011.
9. "[Citizen Sensor Data Mining, Social Media Analytics and Development Centric Web Applications.](#)" (with Meena Nagarajan and Selvam Velmurugan), 20th World Wide Web Conference (WWW2011), Hyderabad, India, Mar. 28, 2011.
10. A Sheth, P. Jain, P. Hitzler, P. Z. Yeh, K. Verma. "[How to Make Linked Data More than Data.](#)" *Semantic Technology Conference 2010*. San Francisco, CA, Jun. 23, 2010.
11. A. Sheth, K. Gomadam, A. Joshi. "[Mobile Semantic Computing.](#)" *2nd International Conference on Semantic Computing (ICSC2008)*. Santa Clara, CA, Aug. 4-7, 2008.
12. A. Sheth, M. Nagarajan, C. Ramakrishnan. "Text Analytics for Semantic Computing—the good, the bad and the ugly." *2nd International Conference on Semantic Computing (ICSC2008)*. Santa Clara, CA, Aug. 4-7, 2008.
13. A. Sheth, K. Verma. "Using SAWSDL for Semantic Service Interoperability." *Semantic Technology Conference*. San Jose, CA, May 20-24, 2007.
14. A. Sheth, S. Stephens. "[Semantic Web: Technologies and Applications for the Real-World.](#)" *16th World Wide Web Conference (WWW2007)*. Banff, Canada, May 8-12, 2007.
15. A Sheth, K. Verma, K. Gomadam. "WSDL-S: Specification, Tools, Use Cases and Applications." *Semantic Technology Conference*. San Jose, CA, Mar. 7, 2006.

Earlier items in this list are removed for brevity.

Panel Presentations at Conferences and Workshops [~60]

1. "Can computer-based explanations be made as informative and useful as an explanation from a well-informed person?" Panel at Ontology Summit 2019 Symposium, 8 May 2019.
2. "[Computational Social Science as the Ultimate Web Intelligence,](#)" Panel at [Web Intelligence, Dec 4-6, 2018, Santiago Chile.](#)
3. "Human-like Chatbots" at the panel on "Cognitive Service Engineering," the Web (formerly WWW), Lyon, France, 25 April 2018.
4. "Semantics, Knowledge, Intelligence and the Web", roundtable at the International Summer School on Web Science and Technology (WebST2016), Bilbao, Spain, July 20, 2016.
5. "Closing the gap between science and societal impact for inclusive smart cities: Which scientific topics should we prioritize to enable a smarter nation?" *3rd Singaporean-French Symposium on Inclusive Smart Cities and Digital Health*, Singapore, Feb. 2-3, 2015.
6. "Meet the Editors." *10th International Semantic Web Conference (ISWC 2011)*. Bonn, Germany, Oct. 23-27, 2011.
7. "[Semantic Social Networking Panel.](#)" *2010 Semantic Technology Conference (SEMTECH 2010)*. San Francisco, CA, Jun. 21-25, 2010.
8. "Linked Data is Merely More Data." Panel on 'Linked Data and AI: The Big Picture,' *Linked AI: AAAI Spring Symposium "Linked Data Meets Artificial Intelligence."* Mar. 22-24, 2010, Stanford CA.
9. "Context is highly contextual!" *4th European Conference on Smart Sensing & Context 2009*, Surrey, UK, Sept. 18, 2009.
10. "Analysis and Monetization of Social Data." Panel on 'Semantifying Social Networks,' *Semantic Technology Conference*, San Jose, CA, Jun. 16, 2009.

11. "[Semantifying Social Networks](#)." Semantic Technology Conf, San Jose, CA, Jun. 16, 2009.
 12. "Regulatory & Policy Reform for Higher Education in Gujarat." International Conference on 'Reconnecting Gujarati Diaspora with its Homeland: Contribution to its Development with a Focus on Building a Knowledge Society' (Patan-Gandhinagar, Jan 17-19, 2009).
 13. "The Semantic Web." *7th International Semantic Web Conference (ISWC 2008)*. Karlsruhe, Germany, Oct. 26-30, 2008. Proceedings Springer 2008.
 14. S. Dustdar, Fiadeiro, A. Sheth: Business process management. *Data Knowl. Eng.* 64(1): 1-2 (2008).
 15. "Relationship Web: Spinning the Web from Trailblazing to Semantic Analytics." *27th International Conference on Conceptual Modeling (ER 2008)*. Barcelona, Spain, Oct. 20-23, 2008.
 16. "Do the current Semantic Web standards and technologies benefit Health Care and Life Science research today?" *1st International Workshop on Health Care and Life Sciences Data Integration for the Semantic Web (HCLS-DI2007)*, *16th International World Wide Web Conference (WWW2007)*. Banff, Canada, May 8, 2007. (Panelist.)
 17. "Semantic Web and Database Conferences." *3rd International Workshop on Semantic Web and Databases*. Atlanta, GA, Apr. 8, 2006.
 18. "Strengths & Weaknesses of Semantic Technology Solutions: View from the Vendor and Research Community." *Taxonomies and Semantic Technologies for S&T Analysis Conference*, MITRE Corporation, Mar. 17, 2006.
 19. "[Semantic Web Services: Past, Present, and Future](#)." *International Workshop in Dynamic Web Processes (DWP 2005)*. Amsterdam, Netherlands, Dec. 12, 2005.
 20. "FLINT and Semantic Web." *BISCSE 2005: Forging New Frontiers*. Berkeley CA, Nov. 2-6, 2005.
 21. "[Semantic Web Service Ontology Standard](#)." *Ontology Conference Call*. Oct. 20, 2005.
- Earlier items in this list are removed for brevity.*

Publications [~1000] (for more complete list, please see [GScholar](#) and [Pubmed](#)): to add 35 publications in 2022, > 34 in 2023]

Book Series Editorship [2]

1. Ramesh Jain and Amit Sheth (Eds.), [Semantic Web and Beyond: Computing for Human Experience](#), Springer, started 2005. Currently thirteen volumes in this series. ISSN 1559-7474
 - i. Volume 1: [Semantic Management of Middleware](#), Daniel Oberle, 2006.
 - ii. Volume 2: [Canadian Semantic Web](#), Mamadou Tadiou Koné and Daniel Lemire (Eds.), 2006.
 - iii. Volume 3: [Semantic Web Services, Processes and Applications](#), Jorge Cardoso and Amit P. Sheth (Eds.), 2006.
 - iv. Volume 4: [Ontology Alignment, Bridging the Semantic Gap](#), Marc Ehrig, 2006.
 - v. Volume 5: [Social Networks and the Semantic Web](#), Peter Mika, 2007.
 - vi. Volume 6: [The Semantic Web: Real-World Applications from Industry](#), Jorge Cardoso, Martin Hepp, and Miltiadis Lytras (Eds.), 2008.
 - vii. Volume 7: [Ontology Management, Semantic Web, Semantic Web Services, and Business Applications](#), Martin Hepp, Pieter De Leenheer, Aldo de Moor, and York Sure (Eds.), 2008.
 - viii. Volume 8: [Semantic Web Services Challenge](#), Charles Petrie, Holger Lausen, Michal Zaremba, and Tiziana Margaria-Steffen (Eds.), 2008.
 - ix. Volume 9: [Ontology Economics](#), Martin Hepp and Robert Tolksdorf (Eds.), 2012
 - x. Volume 9: [Terminological Ontologies](#), Javier Lacasta, Javier Nogueras-Iso, Soria Zarazaga and Javier Francisco (Eds.), 2010.
 - xi. Volume 10: [Semantic Business Process Management](#), Martin hepp, Jogn Domingue and Alistair Barros (Eds.), 2012.
 - xii. Volume 12: [Geospatial Semantics and the Semantic Web: Foundations, Algorithms, and Applications](#), Naveen Ashish and Amit Sheth (Eds.), 2011.
 - xiii. Volume 13: [Social Semantics](#), Harry Halpin Ed., 2013.
2. Ahmed Elmagamid and Amit Sheth (Eds.), [Advances in Database Systems](#), Springer. Prof. Sheth joined as co-editor in Jul. 2007.

Books Authored or Co-Authored [2]

- 1.
2. A. Sheth, K. Thirunarayan. *Semantics Empowered Web 3.0: Managing Enterprise, Social, Sensor, and Cloud-based Data and Services for Advanced Applications*. Morgan & Claypool Publishers. Dec. 19, 2012.
3. V. Kashyap, A. Sheth. *Information Brokering across Heterogeneous Digital Data*. Kluwer Academic Publishers, Aug. 2000, pp. 248.

Books Edited and Co-Edited [11]

1. A. Sheth. *Semantic Web: Ontology and Knowledge Base Enabled Tools, Services and Application*, Information Science Reference, IGI Global, Jul 2013, pp. 1-360 ISBN 978-1-4666-3610, DOI: 10.4018/978-1-4666-3610-1.
2. A. Sheth. *Semantic-Enabled Advancements on the Web: Applications across Industries*. IGI Global, Feb, 2012, pp. 1-324. DOI: 10.4018/978-1-4666-0185-7, ISBN13: 9781466601857.
3. A. Sheth. *Semantic Services, Interoperability and Web Applications: Emerging Concepts*. IGI Global, Jun. 2012, pp. 1-420. DOI: 10.4018/978-1-60960-593-3, ISBN13: 9781609605933.
4. A. Sheth. *Semantic Services, Interoperability and Web Applications: Emerging Concepts.* IGI Global, 2011, pp. 1-420. Web. DOI: 10.4018/978-1-60960-593-3.
5. A. Sheth, N. Ashish, *Geospatial Semantics and the Semantic Web: Foundations, Algorithms, and Applications, in Series: Semantic Web and Beyond. Vol. 12*, Springer 2011.
6. M. Lytras, A. Sheth. *Progressive Concepts for Semantic Web Evolution: Applications and Developments*. IGI Global, 2010. 1-410. DOI: 10.4018/978-1-60566-992-2
7. A. Sheth, M. Lytras, *Semantic Web-Based Information Systems: State-of-the-Art Applications*, CyberTech Publishers/Idea Group, 2007, 317 pp. ISBN 1-59904-426-9 (hardcover), 1-59904-427-7 (softcover).
8. J. Cardoso, A. Sheth. *Semantic Web Services, Processes and Applications*. Springer, 2006, 405 pp. ISBN 0-38730239-5
9. A. Elmagarmid, M. Rusinkiewicz, A. Sheth. *Management of Heterogeneous Distributed Database Systems*, Morgan Kaufmann Publishers, 1999.
10. A. Sheth, W. Klas. *Multimedia Data Management: Using Metadata to Integrate and Apply Digital Data*, McGraw Hill, 1998.
11. A. Dogac, L. Kalinechenko, T. Ozsu, A. Sheth. *Workflow Management Systems and Interoperability*, NATO ASI Series F, Vol. 164, Springer, 1998.

Chapters in Books [65]

1. D. Spina, A. Zubiaga, A. Sheth and M. Strohmaier. "Processing Social Media in Real-time" Information Processing & Management Vol. 56 Iss. 3 (2019) p. 1081 – 1083.
2. U. Kursuncu , M. Gaur, U. Lokala, K. Thirunarayan, A. Sheth, I. B. Arpinar. Predictive Analysis on Twitter: Techniques and Applications. In Emerging Research Challenges and Opportunities in Computational Social Network Analysis and Mining. Eds. N.Agrawal, N. Dokoochaki, S. Tokdemir, *Emerging Research Challenges and Opportunities in Computational Social Network Analysis and Mining, 56 (3), Springer, 2019. pp. 67–104.*
3. S.J. Kho, S. Padhee, G. Bajaj, K. Thirunarayan, A. Sheth. Domain-Specific Use Cases for Knowledge-Enabled Social Media Analysis, In Emerging Research Challenges and Opportunities in Computational Social Network Analysis and Mining. Eds. N.Agrawal, N. Dokoochaki, S. Tokdemir, 56 (3), Springer; 2019. pp. 233-246
4. S. Wijeratne, A. Sheth, S. Bhatt, L. Balasuriya, H. Al-Olimat, M. Gaur, A. H. Yazdavar, K. Thirunarayan. "Feature Engineering for Twitter-based Applications", in Feature Engineering for Machine Learning and Data Analytics. Editors. Guozhu Dong & Huan Liu. Chapman and Hall/CRC Data Mining and Knowledge Discovery Series. pp 359-393, March, 2018.

5. A. Sheth, H. Purohit, G. A. Smith, J. Brunn, A. Jadhav, P. Kapanipathi, C. Lu, and W. Wang. *Twitris- A System for Collective Social Intelligence*. *Encyclopedia of Social Network Analysis and Mining (ESNAM), 2nd edition*. Reda Alhajj, Jon Rokne (Eds.). Springer, 2017, pp. 1-23.
6. R. Krishnamurthy, P. Kapanipathi, A. Sheth, K. Thirunarayan. *Knowledge Enabled Approach to Predict the Location of Twitter Users*. Fabien Gandon, Marta Sabou, Harald Sack, Claudia d'Amato, Philippe Cudré-Mauroux, and Antoine Zimmermann (Eds.). *12th European Semantic Web Conference (ESWC 2015)*. Portoroz, Slovenia: Springer International Publishing, 2015, pp. 187-201.
7. K. Gunaratna, S. Lalithsena, and A. Sheth. Alignment and dataset identification of linked data in Semantic Web. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, Volume 4, Issue 2*, pp. 139-151, Mar./Apr. 2014, DOI: 10.1002/widm.1121
8. C. Aggarwal, N. Ashish, and A. Sheth. (2013). The Internet of Things: A Survey from the Data-Centric Perspective. *Managing and Mining Sensor Data*, pp. 383-428. Retrieved from http://link.springer.com/chapter/10.1007/978-1-4614-6309-2_12
9. A. Sheth and K. Thirunarayan. Semantics Empowered Web 3.0: Managing Enterprise, Social, Sensor, and Cloud-based Data and Services for Advanced Applications. *Synthesis Lectures on Data Management*. Morgan & Claypool Publishers 2012.
10. M. Perry, P. Jain, and A. Sheth. SPARQL-ST: Extending SPARQL to Support Spatiotemporal Queries. *Geospatial Semantics and the Semantic Web: Foundations, Algorithms, and Applications*. N. Ashish, A. Sheth (Eds.). Springer, 2011, pp. 61-86.
11. C. Thomas and A. Sheth. Web Wisdom: An Essay on How Web 2.0 and Semantic Web can foster a Global Knowledge Society. *Computers in Human Behavior*, Vol. 27, Issue 4. Robert Tennyson (Ed.). Elsevier Ltd. 2011, pp. 1285-1293, DOI: 10.1016/j.chb.2010.07.023.
12. C. Pedrinaci, J. Domingue, and A. Sheth. Semantic Web Services. *Handbook of Semantic Web Technologies, Volume 2: Semantic Web Applications*. Eds. J. Domingue; D. Fensel; J. Hendler. Springer, 2010.
13. S. Tartir, I. B. Arpinar, and A. Sheth. *Ontological Evaluation and Validation*. *Theory and Applications of Ontology: Computer Applications*. Eds. Roberto Poli, Michael Healy, and Achilles Kameas. Springer, (Jun. 2010), pp. 115-130. ISBN: 978-90-481-8846-8
14. K. Aberer, A. Gal, M. Hauswirth, K.U. Sattler, and A. Sheth. *Semantic Challenges in Sensor Networks*. *Dagstuhl Seminar Proceedings*. Schloss Dagstuhl-Leibniz-Zentrum fuer Informatik, Germany, (May 2010) ISSN 1862-4405.
15. C. Pedrinaci, J. Domingue, and A. Sheth. Semantic Web Services. *Handbook of Semantic Web Technologies, Semantic Web Applications*, Vol. 2. J. Domingue, D. Fensel and J. Springer (Eds.), 2010.
16. L. Deligiannidis and A. Sheth. *Visualization of Two Parameters in a Three Dimensional Environment*. *Human-Computer Systems Interaction: Backgrounds and Applications*. Zdzislaw S. Hippe and Juliusz L. Kulikowski (Eds.). Springer-Verlag, 60, pp. 419-428, Oct. 2009. ISBN: 978-3-642-03201-1
17. K. Gomadam, A. Ranabahu, Z. Wu, A. Sheth, and J. Miller. A Declarative Approach using SAWSDL and Semantic Templates towards Process Mediation. *Semantic Web Services Challenge: Results from the First Year, Series: Semantic Web and Beyond*, Vol. 8. C. Petrie, T. Margaria, H. Lausen, and M. Zaremba (Eds.). (Dec. 2008) pp. 101-118.
18. A. Sheth, S. Agrawal, J. Lathem, N. Oldham, H Wingate, P. Yadav, and K. Gallegher. Active Semantic Electronic Medical Records. *The Semantic Web: Real World Applications from Industry*. J. Cardoso, M. Hepp, and M. Lytras (Eds.). Springer, 2008, pp. 123-140. ISBN-13: 978-9-387-48530-0.
19. P. Mika, R. Jain, and A. Sheth. Chapter 4: Knowledge representation on the Semantic Web. *Social Networks and the Semantic Web*. Springer 2007, pp. 65-92.

20. P. Mika, R. Jain, and A. Sheth. Chapter 5: Modeling and Aggregating Social Network Data. *Social Networks and the Semantic Web*. Springer 2007, pp. 93-120.
21. P. Mika, R. Jain, and A. Sheth. Chapter 6: Developing Social-Semantic Applications. *Social Networks and the Semantic Web*. Springer 2007, pp. 121-154.
22. P. Mika, R. Jain, and A. Sheth. Chapter 9: Ontologies are us: Emergent Semantics in Folksonomy Systems. *Social Networks and the Semantic Web*. Springer, pp. 193-210.
23. S. Sahoo, A. Sheth, B. Hunter, and W. York. Semantic Biological Web Services Registry. *Semantic Web: Revolutionizing Knowledge Discovery in the Life Sciences*. Christopher Baker and Kei-Hoi Cheung (Eds.). Springer, 2007.
24. K. Verma, A. Sheth, S. Oundhakar, K. Sivashanmugam, and J. Miller. Allowing the Use of Multiple Ontologies for Discovery of Web Services in Federated Registry Environment. *Advances in Web Services Research: Web Services Research and Practices*, Vol. 2, IGI Global, 2007.
25. F. Hakimpour, B. Aleman-Meza, M. Perry, and A. Sheth. Spatiotemporal-Thematic Data Processing in Semantic Web. *The Geospatial Web*. A. Scharl and K. Tochtermann (Eds.). Springer, May 2007.
26. M. Perry, A. Sheth, and I. B. Arpinar. Geospatial and Temporal Semantic Analytics. in *Encyclopedia of Geoinformatics*. Ed. H. Karimia. Idea Group, 2007. ISBN 1-59140-995-0.
27. S. S. Sahoo, A. Sheth, B. Hunter, and W. York. SemBOWSER-Semantic Biological Web Services Registry. *Semantic Web: Revolutionizing Knowledge Discovery in the Life Sciences*. C. Baker and Kei-Hoi Cheung (Eds.). New York: Springer, 2007, pp. 318-339.
28. B. Aleman-Meza, A. Sheth, D. Palaniswami, M. Eavenson, and I. B. Arpinar. Semantic Analytics in Intelligence: Applying Semantic Association Discovery to Determine Relevance of Heterogeneous Documents. *Advanced Topics in Database Research*, Vol. 5. Ed. K. L. Siau, Idea Group Publishers, 2006, pp. 401-419.
29. J. Cardoso and A. Sheth. The Semantic Web and its Applications. *Semantic Web Services, Processes and Applications*. J. Cardoso and A. Sheth (Eds.). Springer, 2006, pp. 5-36.
30. K. Gomadam, K. Verma, A. Sheth, and K. Li. Keywords, Port Types and Semantics: A Journey in the Land of Web Service Discovery. *Semantic Web Services, Processes and Applications*. J. Cardoso and A. Sheth (Eds.). Springer, 2006, pp. 91-108.
31. K. Li, K. Verma, R. Mulye, R. Rabbani, J. Miller, and A. Sheth. Designing Semantic Web Processes: The WSDL-S Approach. *Semantic Web Services, Processes and Applications*. J. Cardoso and A. Sheth (Eds.). Springer, 2006, pp. 163-198.
32. C. Thomas and A. Sheth. On the Expressiveness of the Languages for the Semantic Web-Making a Case for 'A Little More'. *Fuzzy Logic and the Semantic Web*. Ed. Eli Sanchez, Elsevier, 2006.
33. S. S. Sahoo and A. Sheth. Bioinformatics Applications of Web Services. in *Semantic Web Services, Processes and Applications*, J. Cardoso and A. Sheth (Eds.), Springer, 2006, p. 305-322.
34. A. Sheth. Enterprise Application of Semantic Web: The Sweet Spot of Risk and Compliance. *Industrial Applications of Semantic Web*. M. Bramer and V. Terziyan (Eds.). Springer, 2005, pp. 47-62.

Earlier items in this list are removed for brevity.

Journal Papers [125+] (last author in a biomedical/health journal => contact author/PI)

1. A. Sheth, V. Shalin, U. Kursuncu, Defining and detecting toxicity on social media: context and knowledge are key, *Neurocomputing*, v. 490, 2022, Pages 312-318.
2. U. Lokala, F. Lamy. R. Daniulaityte, M. Gaur, A. Gyrard, K. Thirunarayan, U. Kursuncu, A. Sheth. Drug Abuse Ontology to Harness Web-Based Data for Substance Use

- Epidemiology Research: Ontology Development Study JMIR Public Health Surveill 2022;8(12):e24938.
3. A. Yazdavar, MS. Mahdavejad, G. Bajaj, W. Romine, A. Sheth, AH. Monadjemi, et al. (2020) Multimodal mental health analysis in social media. PLoS ONE 15(4): e0226248. April 10, 2020. <https://doi.org/10.1371/journal.pone.0226248>
 4. M. Rezvan, S. Shekarpour, F. Alshargi, K. Thirunarayan, V.L. Shalin, A. Sheth. Analyzing and learning the language for different types of harassment, *PloS one*, 27 March 2020, 15 (3) , e0227330
 5. A. Gyrard, A. Sheth. IAMHAPPY: Towards an IoT knowledge-based cross-domain well-being recommendation system for everyday happiness, *Smart Health*, 01 March 2020, 15, 100083
 6. Hofseth, L.J., Hebert, J.R., Chanda, A. et al. Early-onset colorectal cancer: initial clues and current views. *Nat Rev Gastroenterol Hepatol* (2020). <https://doi.org/10.1038/s41575-019-0253-4>
 7. U. Kursuncu, M. Gaur, R. Wickramarachchi, A. Sheth. Shades of Knowledge-Infused Learning for Enhancing Deep Learning, *IEEE Internet Computing*, 29 November - December 2019, 23 (6), 54-63
 8. U. Kursuncu, M. Gaur, C. Castillo, A. Alambo, K. Thirunarayan, V. Shalin, D. Achilov, I. B. Arpinar, A. Sheth. Modeling Islamist Extremist Communications on Social Media using Contextual Dimensions: Religion, Ideology, and Hate, *Proceedings of the ACM on Human-Computer Interaction 3 (CSCW)*, November 2019, 1-22
 9. A. Sheth, S. Padhee, A. Gyrard. Knowledge Graphs and Knowledge Networks: The Story in Brief, *IEEE Internet Computing*, 17 October 2019, 23 (4), 67-75
 10. C. Tebo, M. Mazer-Amirshahi, S. Campleman, E. Boyer, J. Brent, A. Sheth, P. Wax, R. Carlson. Characterizing trends in synthetic cannabinoid use from structured patient interviews during medical toxicology consultation, *Clinical Toxicology*, 03 October 2019, 57 (10), 923-924
 11. JJ. Deferio, S. Breitingner, D. Khullar, A. Sheth, J. Pathak. [Social determinants of health in mental health care and research: a case for greater inclusion](#), *Journal of the American Medical Informatics Association*, Volume 26, Issue 8-9, August/September 2019, Pages 895–899.
 12. A. Sheth, H.Y. Yip, S. Shekarpour. Extending Patient-Chatbot Experience with Internet-of-Things and Background Knowledge: Case Studies with Healthcare Applications, *IEEE Intelligent Systems*, 34 (4), 18 September 2019, pp. 24-30
 13. F.G. Motlagh, S. Shekarpour, A. Sheth, K. Thirunarayan, M.L. Raymer. Predicting public opinion on drug legalization: social media analysis and consumption trends, *IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining*, 27 August 2019
 14. J.Deferio, S. Breitingner, D. Khullar, A. Sheth, J. Pathak. [Social determinants of health in mental health care and research: a case for greater inclusion](#), (Perspective) *Journal of the American Medical Informatics Association*, Volume 26, Issue 8-9, August/September 2019, Pages 895–899.
 15. A. Sheth, S. Padhee and A. Gyrard, "Knowledge Graphs and Knowledge Networks: The Story in Brief," in *IEEE Internet Computing*, vol. 23, no. 4, pp. 67-75, 1 July-Aug. 2019.
 16. R. Mamidi, M. Miller, T. Banerjee, W. Romine, A. Sheth. Identifying Key Topics Bearing Negative Sentiment on Twitter: Insights Concerning the 2015-2016 Zika Epidemic, *JMIR*

- Public Health Surveill, 5(2), Apr-Jun 2019 :e11036 DOI: 10.2196/11036, PMID: 31165711, PMCID: 6682293
17. U. Lokala, F. Lamy, R. Daniulaityte, A. Sheth, R. Nahhas, J. Roden & S. Yadav, R. Carlson, "Global trends, local harms: availability of fentanyl-type drugs on the dark web and accidental overdoses in Ohio," Computational and Mathematical Organization Theory, Springer, vol. 25(1), March, 2019. pp 48-59.
 18. R. Venkataramanan, K. Thirunarayan, U. Jaimini, D. Kadariya, HY. Yip, M. Kalra, A. Sheth Determination of Personalized Asthma Triggers From Multimodal Sensing and a Mobile App: Observational Study, JMIR Pediatr Parent 2019;2(1):e14300, DOI: 10.2196/14300, PMID: 31518318, PMCID: 6716491.
 19. U. Jaimini, K. Thirunarayan, M. Kalra, R. Venkataraman, D. Kadariya, A. Sheth. How is my Child's Asthma?": Digital Phenotype and Actionable Insights for Pediatric Asthma, JMIR Pediatrics and Parenting. Vol 1, No 2 (2018): Jul-Dec DOI: 10.2196/11988. PMID: 31008446 , PMCID: PMC6469868
 20. J. Deferio, T. Levin, J. Cukor, S. Banerjee, R. Abdulrahman, A. Sheth, N. Mehta, J. Pathak. Using electronic health records to characterize prescription patterns: focus on antidepressants in nonpsychiatric outpatient settings, JAMIA Open, Oxford Academic, Sept 2018.
 21. M. S. Mahdavejad, M. Rezvan, M. Barekatin, P. Adibi, P. Barnaghi, A. Sheth. Machine learning for Internet of Things data analysis: a survey, Digital Communications and Networks, 4 (3), 2018, Pp. 161-175, <https://doi.org/10.1016/j.dcan.2017.10.002>.
 22. F. Lamy, R. Daniulaityte, M. Zatreh, R. Nahhas, A. Sheth, S. Martins, E. Boyer, R. Carlson. "You got to love rosin: Solventless dabs, pure, clean, natural medicine." Exploring Twitter data on emerging trends in Rosin Tech marijuana concentrates," Drug & Alcohol Dependence , Volume 183 , 248 - 252, 2018.
 23. S. Sharma, K. Chen, A. Sheth. Toward Practical Privacy-Preserving Analytics for IoT and Cloud-Based Healthcare Systems, IEEE Internet Comp, 22 (2), Mar/Apr 2018, pp. 42-51.
 24. F. Lamy, R. Daniulaityte, R. Nahhas, M. Barratt, A. Smith, A. Sheth, S. Martins, E., Boyer, & R. Carlson. Increased in synthetic cannabinoids-related harms: Results from a longitudinal web-based content analysis. Intl J of Drug Policy (44), pp. 121-129.
 25. U. Jaimini, T. Banerjee, W. Romine, K. Thirunarayan, A. Sheth, & M. Kalra. Investigation of an Indoor Air Quality Sensor for Asthma Management in Children, IEEE Sensors Letters, Volume 1 (2), pp. 1-4. 2017. Manuscript #876517
 26. T. Banerjee, A. Sheth. IoT Quality Control for Data and Application Needs, IEEE Intelligent Systems, Volume 32 (2), pp. 68-73. 2017.
 27. R. Daniulaityte, F. Lamy, M. Barratt, R. Nahhas, S. Martins, E. Boyer, A. Sheth, R. Carlson Characterizing marijuana concentrate users: A web-based survey, Drug and Alcohol Dependence 2017;178:399-407. PMID: 28704769 PMCID: PMC5567791
 28. V. Nguyen, J. Leeka, O. Bodenreider, A. Sheth. A Formal Graph Model for RDF and Its Implementation. CoRR. 2016. abs/1606.00480.
 29. R. Daniulaityte, L. Chen, F. Lamy, R. Carlson, K. Thirunarayan, & A. Sheth. "When 'Bad' is 'Good'": Identifying Personal Communication and Sentiment in Drug-Related Tweets. JMIR Public Health and Surveillance 2016; 2(2): e162. DOI: [10.2196/publichealth.6327](https://doi.org/10.2196/publichealth.6327). PMID: [27777215](https://pubmed.ncbi.nlm.nih.gov/27777215/).
 30. F. Lamy, R. Daniulaityte, A. Sheth, R. Nahhas, S. Martins, E. Boyer, R. Carlson. "Those edibles hit hard": Exploration of Twitter data on cannabis edibles in the U.S. Drug and Alcohol Dependence, pp. 64-70. 2016. PMID: 27185160. PMCID: PMC4893972. Manuscript #785637.

31. H. Purohit, T. Banerjee, A. Hampton, V. L. Shalin, N. Bhandutia, & A. Sheth. [Gender-based violence in 140 characters or fewer: a #BigData case study of Twitter](#). *First Monday*, 21(1-4), Jan 2016.
32. A. Gyrard, P. Patel, A. Sheth, M. Serrano. [Building the Web of Knowledge with Smart IoT Applications](#). *CoRR*, abs/1606.07988. 2016.
33. A. Sheth, P. Anantharam, C. Henson. [Semantic, Cognitive, and Perceptual Computing: Paradigms That Shape Human Experience](#). *Computer*, 49(3), pp. 64-72. 2016.
34. D. Cameron, R. Kavuluru, T. Rindflesch, A. Sheth, K. Thirunarayan, O. Bodenreider. [Context-driven automatic subgraph creation for literature-based discovery](#). *Journal of Biomedical Informatics*: 54, p. 141-157. 2016.
35. V. Nguyen, O. Bodenreider, K. Thirunarayan, G. Fu, E. Bolton, N. Rosinach, L. Furlong, M. Dumontier, A. Sheth. [On Reasoning with RDF Statements about Statements using Singleton Property Triples](#). *CoRR*, abs/1509.04513. 2015.
36. A. Sheth, P. Anantharam, C. Henson. [Semantic, Cognitive, and Perceptual Computing: Advances Toward Computing for Human Experience](#). *CoRR*, abs/1510.05963. 2015.
37. G. Fu, E. Bolton, N. Rosinach, L. Furlong, V. Nguyen, A. Sheth, O. Bodenreider, M. Dumontier. [Exposing Provenance Metadata Using Different RDF Models](#). *CoRR*, abs/1509.02822. 2015.
38. R. Daniulaityte, R. Carlson, G. Brigham, D. Cameron, A. Sheth. [Sub is a Weird Drug: A Web-Based Study of Lay Attitudes About Use of Buprenorphine to Self-Treat Opioid Withdrawal Symptoms](#). *The American Journal on Addictions* 24(5), 403-409. 2015.
39. P. Anantharam, P. Barnaghi, K. Thirunarayan, A. Sheth. [Extracting City Traffic Events from Social Streams](#). *ACM Transactions on Intelligent Systems and Technology*: 6(4), p. 2-27. 2015.
40. R. Daniulaityte, R. Nahhas, S. Wijeratne, R. Carlson, F. Lamy, S. Martins, E. Boyer, G. Smith, and A. Sheth. ["Time for dabs": Analyzing Twitter data on marijuana concentrates across the U.S.](#) *Drug and Alcohol Dependence*, Elsevier, 155: 307-11, Oct 2015.
41. K. Thirunarayan & A. Sheth. [Semantics-empowered Big Data Processing with Applications](#). *AI Magazine*, 36(1): 39-54, Spring 2015.

42. D. Cameron, R. Kavuluru, T. C. Rindfleisch, A. Sheth, K. Thirunarayan, & O. Bodenreider. [Context-Driven Automatic Subgraph Creation for Literature-Based Discovery](#). *Journal of Biomedical Informatics*, 54: 141-157 (2015).
43. H. Thirunarayan, P. Anantharam, C. Henson, A. Sheth. Comparative Trust Management with Applications: Bayesian Approaches Emphasis, Future Generation Computer Systems. *Elsevier* (2014), Volume 31, pp. 182-199, Feb. 2014.
44. S. Gustafson & A. Sheth. [The Web of Things](#). *Computing Now*, 7(3), March 2014. IEEE Computer Society.
45. D. Cameron, A. P. Sheth, N. Jaykumar, G. Anand, K. Thirunarayan, & G. A. Smith. [A Hybrid Approach to Finding Relevant Social Media Content for Complex Domain Specific Information Needs](#). *Journal of Web Semantics*, 29: 39-52 (2014).
46. Purohit H., Hampton A., Bhatt S., Shalin V., Sheth A., & Flach J. [An Information Filtering and Management Model for Twitter Traffic to Assist Crises Response Coordination](#). JCSCW 2013 - Special Issue on Crisis Informatics and Collaboration, 2014.
47. A. Jadhav, D. Andrews, A. Fiksdal, A. Kumbamu, J. McCormick, A. Misitano, L. Nelsen, E. Ryu, A. Sheth, S. Wu, J. Pathak. [Comparative Analysis of Online Health Queries Originating From Personal Computers and Smart Devices on a Consumer Health Information Portal](#). *Journal of Medical Internet Research* (2014) Vol. 16, Issue 7: e160, PMID: 25000537.
48. S. Perera, C. Henson, K. Thirunarayan, A. Sheth, S. Nair. Semantics Driven Approach for Knowledge Acquisition from EMRs. *IEEE Journal of Biomedical and Health Informatics*, Vol. 18, Issue 2, pp. 515-524, Mar. 2014, DOI: 10.1109/JBHI.2013.2282125, PMID: 24058038.
49. H. Purohit, C. Castillo, F. Diaz, A. Sheth, P. Meier. Emergency-Relief Coordination on Social Media: Automatically Matching Resource Requests and Offers. *First Monday*, Vol. 19, Issue 1, Jan. 2014.
50. Purohit, H., Hampton, A., Bhatt, S., Shalin, V. L., Sheth, A. P., & Flach, J. M. (2014). Identifying Seekers and Suppliers in Social Media Communities to Support Crisis Coordination." *Computer-Supported Cooperative Work*: 23(4-6), pp. 513-545.
51. M. Panahiazar, A. P Sheth, A. Ranabahu, R. A. Vos, & J. Leebens-Mack. Advancing data reuse in phyloinformatics using an ontology-driven Semantic Web approach. *BMC Medical Genomics*, 2013, 6 (Suppl 3):S5. DOI: 10.1186/1755-8794-6-S3-S5 impact factor 3.47.
52. A. Ranabahu, E. Maximilien, A. Sheth, K. Thirunarayan. Application Portability in Cloud Computing: An Abstraction Driven Perspective. *IEEE Transactions on Services Computing*, PP(99): 1 (2013). DOI: 10.1109/TSC.2013.25.
53. M. Panahiazar, O. Bodenreider, B. Rance, A. P. Sheth, J. Leebens Mack. MUDIDS: A Multi-dimensional Integrative Approach to Comparing Gene for Knowledge Discovery. *Journal of Biomedical Semantics*, 2013.
54. H. Purohit, A. Hampton, V. Shalin, A. Sheth, J. Flach, S. Bhatt. What Kind of #Communication is Twitter? Mining #Psycholinguistic Cues for Emergency Coordination. *Computers in Human Behavior (CHB) Journal*, Vol. 29, Issue 6, Nov. 2013, pp. 2438-2447.

55. P. Barnaghi, A. Sheth, C. Henson. [From data to actionable knowledge: Big data challenges in the web of things.](#) *IEEE Intelligent Systems*, Volume: 28, Issue: 6, Nov./Dec. 2013.
56. D. Cameron, G.A. Smith, R. Daniulaityte, A. Sheth, D. Dave, L. Chen, G. Anand, R. Carlson, K. Watkins, R. Falck. [PREDOSE: A Semantic Web Platform for Drug Abuse Epidemiology using Social Media.](#) *Journal of Biomedical Informatics*. 46(6): 985-997, 2013. PMID: 23892295. (Included in *IMIA Yearbook of Medical Informatics* as part of [Best of Medical Informatics](#) articles from the preceding year.)
57. R. Daniulaityte, R. Carlson, R. Falck, D. Cameron, S. Perera, L. Chen, A. Sheth. ['I just wanted to tell you that loperamide WILL WORK': A Web-Based Study of Extra-Medical Use of Loperamide.](#) *Drug Alcohol Dependency* 130(1-3): 241-244, 2013. PMID: 23201175.
58. D. Cameron, O. Bodenreider, H. Yalamanchili, T. Danh, S. Vallabhaneni, K. Thirunarayan, A. Sheth, T. Rindfleisch. [A Graph-Based Recovery and Decomposition of Swanson's Hypothesis using Semantic Predications.](#) *Journal of Biomedical Informatics* 46(2): 238-251, 2013. PMID: 23026233.
59. H. Purohit, A. Hampton, V. L. Shalin, A. Sheth, J. Flach, S. Bhatt. [What kind of #conversation is Twitter? Mining #psycholinguistic cues for emergency coordination.](#) *Computers in Human Behavior*, 29(6), pp. 2438-2447, Nov. 2013. ISSN 0747-5632.
60. A. Sheth, P. Anantharam, C. Henson. [Physical-Cyber-Social Computing: An Early 21st Century Approach.](#) *IEEE Intelligent Systems*, Vol 28, Issue 1, pp. 78-82, Jan. - Feb., 2013.
61. M. Compton, P. M. Barnaghi, L. Bermudez, R. Garcia-Castro, Ó. Corcho, S. Cox, J. Graybeal, M. Hauswirth, C. A. Henson, A. Herzog, V. A. Huang, K. Janowicz, W. D. Kelsey, D. L. Phuoc, L. Lefort, M. Leggieri, H. Neuhaus, A. Nikolov, K. R. Page, A. Passant, A. Sheth, K. Taylor. [The SSN ontology of the W3C semantic sensor network incubator group.](#) *Journal of Web Semantics* 17, pp. 25-32, Dec. 2012.
62. M. Panahiazar, A. Ranabahu, V. Taslimi, H. Yalamanchili, A. Stoltzfus, J. Leebens-Mack, & A. Sheth. PhylOnt: A Domain-Specific Ontology for Phylogeny Analysis. *IEEE International Conference on Bioinformatics and Biomedicine*, BIBM 2012, 52: 1, 106-116.
63. M. Panahiazar, A. Sheth, A. Ranabahu, & J. Leebens-Mack. Semantic Technology and Translational Genomic Research. *2012 AMIA Summit on Translational Bioinformatics*, Arch 19, 2012 - March 21, 2012, San Francisco, CA, TBI, 2012, 176.
64. M. Panahiazar, J. Leebens-Mack, A. Ranabahu, & A. Sheth. Using Semantic Technologies for Phylogeny. *2012 AMIA Summit on Translational Bioinformatics*, Arch 19, 2012 - March 21, 2012, San Francisco, CA, TBI, 2012, 175.
65. A. Ranabahu, A. Sheth, M. Panahiazar, S. Wijeratne. Semantic Annotation and Search for resources in the next Generation Web with SA-REST SA-REST for Service Annotation. *W3C Workshop on Data and Services Integration*, 2011.
66. A. Ranabahu, P. Priti, M. Panahiazar, A. Sheth, F. Logan-Klumpler. Kino: A Generic Document Management System for Biologists Using SA-REST and Faceted Search. *2011 IEEE Fifth International Conference on Semantic Computing*.
67. P. Barnaghi, F. Ganz, C. Henson, A. Sheth. [Computing Perception from Sensor Data.](#) *Proceedings 2012 IEEE Sensors Conf*, Taipei, Taiwan, pp. 1-4, Oct. 28-31, 2012.
68. P. P. Parikh, J. Zheng, F. Logan-Klumpler, C. J. Stoeckert, C. Louis, P. Topalis, A. V. Protasio, A. Sheth, M. Carrington, M. Berriman, S. Sahoo. [The Ontology for Parasite Lifecycle \(OPL\): Towards A Consistent Vocabulary of Lifecycle Stages in Parasitic Organisms.](#) *Journal of Biomedical Semantics*: 3(5), May 23, 2012. DOI: 10.1186/2041-1480-3-5.
69. A. Sheth. [A new landscape for distributed and parallel data management.](#) *Distributed and Parallel Databases* 30(2), pp. 101-103, Apr. 4, 2012.

70. C. A. Henson, A. Sheth, K. Thirunarayan. [Semantic Perception: Converting Sensory Observations to Abstractions](#). *IEEE Internet Computing* 16(2), pp. 26-34, Jan. 17, Mar. - Apr. 2012.
71. W. Wang, L. Chen, M. Tan, S. Wang, A. Sheth. [Discovering Fine-grained sentiment in Suicide Notes](#). *Biomedical Informatics Insights* 5 (Suppl. 1), pp. 137-145, Jan. 30, 2012. DOI: [10.4137/BII.S8963](#)/PMCID: PMC3409482.
72. P. P. Parikh, T. A. Minning, V. Nguyen, S. Lalithsena, A. H. Asiaee, S. S. Sahoo, P. Doshi, R. Tarleton, A. Sheth. [A Semantic Problem Solving Environment for Integrative Parasite Research: Identification of Intervention Targets for Trypanosoma cruzi](#). *PLOS Neglected Tropical Diseases*, Volume 6, Issue 1, pp. 1-12, Jan. 2012. PMID: 22272365.
73. D. J. Wild, Y. Ding, A. Sheth, L. Harland, E. M. Gifford, M. S. Lajiness. [Systems Chemical Biology and the Semantic Web: What They Mean for the Future of Drug Discovery Research](#). *Drug Discovery Today*, Dec. 29, 2011. ISSN 1359-6446, 10.1016/j.drudis.2011.12.019, PMID: 22222943.
74. S. Ilarri, A. Illarramendi, E. Mena, A. Sheth. [Semantics in Location-Based Services](#). *IEEE Internet Computing*, 15(6), pp. 10-14, Nov. - Dec., 2011.
75. C. A. Henson, K. Thirunarayan, A. Sheth. [An ontological approach to focusing attention and enhancing machine perception on the Web](#). *Applied Ontology*, 6(4), pp. 345-376, Dec. 2011.
76. A. Sheth. [Semantics Scales Up: Beyond Search in Web 3.0](#). *IEEE Internet Computing* 15(6), pp 3-6, Nov. - Dec. 2011.
77. A. Ranabahu, P. Anderson, A. Sheth. [The Cloud Agnostic e-Science Analysis Platform](#). *IEEE Internet Computing*, 15(6), pp. 85-89, Nov. - Dec. 2011.
78. C. Thomas, A. Sheth. [Web Wisdom: An essay on how Web 2.0 and Semantic Web can foster a global knowledge society](#). *Computers in Human Behavior* 27(4), pp. 1285 - 1293, Jul. 2011.
79. J. Zhao, S. S. Sahoo, P. Missier, A. Sheth, C. Goble. [Extending Semantic Provenance into the Web of Data](#). *IEEE Internet Computing* 15(1), pp. 40-48, Jan. - Feb. 2011. DOI: 10.1109/MIC.2011.7.
80. D. Gruhl, M. Nagarajan, J. Pieper, C. Robson, A. Sheth. [Multimodal Social Intelligence in a Real-Time Dashboard System](#). *VLDB Journal* special issue on 'Data Management and Mining for Social Networks and Social Media' 19(6), pp. 825-848, Dec. 2010.
81. A. Sheth, A. Ranabahu. [Semantic Modeling for Cloud Computing, Part 2](#). *IEEE Internet Computing* 14(4), pp. 81-84, Jul. - Aug. 2010.
82. A. Sheth, A. Ranabahu. [Semantic Modeling for Cloud Computing, Part 1](#). *IEEE Internet Computing* 14(3), pp. 81-83, May-Jun. 2010.
83. A. Sheth. [Computing for Human Experience: Semantics-Empowered Sensors, Services, & Social Computing on the Ubiquitous Web](#). *IEEE Internet Computing: Vision Issue* 14(1), pp. 88-91, Jan. - Feb. 2010. DOI: 10.1109/MIC.2010.4
84. A. Sheth, C. Thomas, P. Mehra. [Continuous Semantics to Analyze Real-Time Data](#). *IEEE Internet Computing* 14(6), pp. 84-89, Nov. 2010.
85. A. Sheth. [Citizen Sensing, Social Signals, and Enriching Human Experience](#). *IEEE Internet Computing* 13(4), pp. 87-92, Jul. 2009.
86. A. Sheth, M. Nagarajan. [Semantics-Empowered Social Computing](#). *IEEE Internet Computing* 13(1), pp. 76-80, Jan. - Feb. 2009.
87. S. S. Sahoo, O. Bodenreider, J. L. Rutter, K. J. Skinner, A. Sheth. [An Ontology-Driven Semantic Mash-up of Gene and Biological Pathway Information: Application to the Domain of Nicotine Dependence](#). *Journal of Biomedical Informatics*, special issue: Semantic Biomedical Mashups 41(5), pp.752-765, Oct. 2008.
88. D. Benslimane, S. Dustdar, & A. Sheth. [Services Mashups: The New Generation of Web Applications](#). *IEEE Internet Computing* 12(5), pp. 13-15, Sept. - Oct. 2008.

89. A. Sheth, C. Henson, & S. Sahoo. [Semantic Sensor Web](#). *IEEE Internet Computing*, Jul. - Aug. 2008, p. 78-83.
90. A. Sheth, K. Gomadam, & A. Ranabahu. [Semantic-Enhanced Services: METEOR-S, SAWSDL, and SA-REST](#), *IEEE Computer Society*, 31(3), pp. 8-12, Sept. 2008.
91. S. S. Sahoo, A. Sheth, & C. Henson. [Semantic Provenance for eScience: Managing the Deluge of Scientific Data](#). *IEEE Internet Computing* 12(4), pp. 46-54, Jul. - Aug. 2008.
92. A. Sheth, C. Henson, & S. Sahoo. [Semantic Sensor Web](#). *IEEE Internet Computing* 2(4), pp. 78-83, Jul. - Aug. 2008.
93. A. Sheth, M. Perry. [Traveling the Semantic Web through Space, Time and Theme](#). *IEEE Internet Computing*, 12 (2), pp. 81-86, Feb. - Mar. 2008.
94. B. Aleman-Meza, M. Nagarajan, L. Ding, A. Sheth, I.B. Arpinar, A. Joshi, & T. Finin. [Scalable Semantic Analytics on Social Networks for Addressing the Problem of Conflict of Interest Detection](#). *ACM Transactions on the Web* 2(1), Feb. 2008.
95. S. Dustdar, J. L. Fiadeiro, A. Sheth. [Business process management](#). *Data Knowledge Engineering* 64(1), pp. 1-2, Jan. 2008.
96. A. Sheth, K. Gomadam, A. Ranabahu. [Semantics enhanced Services: METEOR-S, SAWSDL and SA-REST](#). *IEEE Data Engineering* 31(3), pp. 8-12, Jan. 2008.
97. A. Sheth, K. Gomadam, J. Lathem. [SA-REST: Semantically Interoperable and Easier-to-Use Services and Mashups](#). *IEEE Internet Computing*, Nov. - Dec. 2007, pp. 84-87.
98. M. Nagarajan, K. Verma, A. Sheth, J. Miller. [Ontology Driven Data Mediation in Web Services](#). *International Journal of Web Services Research* 4(4), pp. 104-126, Oct. - Dec. 2007.
99. K. Verma, A. Sheth. [Semantically Annotating a Web Service](#). *Internet Computing* 11(2), pp. 83-86, Apr. 2007.
100. B. Aleman-Meza, F. Hakimpour, I.B. Arpinar, A. Sheth. [SwetoDblp Ontology of Computer Science Publications](#). *Web Semantics*, 5(3), pp. 151-155, Mar. 2007.
101. B. Arpinar, A. Sheth, C. Ramakrishnan, L. Usery, M. Azami, M. Kwan. [Geospatial Ontology Development and Semantic Analytics](#). *Transactions in GIS*, 10(4), pp. 551-576, Jul. 2006. (Abstract).
102. A. Sheth, K. Verma, K. Gomadam. [Semantics to energize the full Services Spectrum](#). *Communications of the ACM (CACM) special issue on Services Science* 49(7), pp. 55-61, Jul. 2006.
103. H. Purohit, V. L. Shalin and A. P. Sheth, [Knowledge Graphs to Empower Humanity-Inspired AI Systems](#). *IEEE Internet Computing*, vol. 24, no. 4, pp. 48-54, 1 July-Aug. 2020, doi: 10.1109/MIC.2020.3013683

Earlier items in this list are removed for brevity.

Conference Publications [190+]

1. A. Gyrard, M. Gaur, S. Padhee, A. Sheth, M. Juganaru-Mathieu. "Knowledge Extraction for the Web of Things" (KE4WoT): WWW '18 Companion Proceedings of the The Web Conference 2018, pages 1935-1936, 23-27 April 2018, Lyon, France.
2. U. Kursuncu, M. Gaur, U. Lokala, A. Illendula, T. Krishnaprasad, R. Daniulaityte, A. Sheth, I. B. Arpinar. "[What's ur type?'](#) Contextualized Classification of User Types in [Marijuana-related Communications using Compositional Multiview Embedding](#)". *IEEE/WIC/ACM Intl Confe on Web Intelligence (WI2018)* Santiago, Chile. 2018
3. S. Bhatt, S. Padhee, K. Chen, V. Shalin, D. Doran, A. Sheth, and B. Minnery. Knowledge graph enhanced community detection and characterization. In Proc. of the Twelfth ACM International Conference on Web Search and Data Mining (WSDM). ACM, Feb 2019.

4. S. Bhatt, M. Gaur , B. Bullemer , V. Shalin, A. Sheth, B. Minnery "[Enhancing crowd wisdom using explainable diversity inferred from social media](#)". In IEEE/WIC/ACM International Conference on Web Intelligence. Santiago, Chile: Dec. 2018.
5. M. Gaur, U. Kursuncu, A. Alambo, A. Sheth, Raminta Daniulaityte, Krishnaprasad Thirunarayan, Jyotishman Pathak. "[Let Me Tell You About Your Mental Health!](#)" [Contextualized Classification of Reddit Posts to DSM-5 for Web-based Intervention](#). In Proc. 27th ACM Intl Conf on Information and Knowledge Management (CIKM'18). ACM. Torino, Italy, Oct. 2018
6. H. Al-Olimat, K. Thirunarayan, V. Shalin, A. Sheth. "[Location Name Extraction from Targeted Text Streams using Gazetteer-based Statistical Language Models](#)." The 27th Intl Confl on Computational Linguistics (COLING 2018). Aug 20-26, 2018, Santa Fe, NM, USA
7. H. Al-Olimat, S. Gustafson, J. Mackay, K. Thirunarayan, A. Sheth. A Practical Incremental Learning Framework For Sparse Entity Extraction. The 27th Intl Conf on Computational Linguistics (COLING 2018), Augl 20-26, 2018, Santa Fe, NM, USA
8. M. Rezvan, S. Shekarpour, L. Balasuriya, K. Thirunarayan, V. Shalin, A. Sheth. "[A Quality Type-aware Annotated Corpus and Lexicon for Harassment Research](#)". *Proceedings of the 10th ACM Conference on Web Science - WebSci 2018*, Amsterdam, The Netherlands, May 27-30, 2018. Nominated for the best paper award.
9. S. Kho, H. Yalamanchili, M. Raymer, A. Sheth. [A Novel Approach for Classifying Gene Expression Data using Topic Modeling](#). *8th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics*. Boston, MA. August 20-23, 2017.
10. A. Sheth, HY. Yip, A. Iyengar, P. Tepper. "Cognitive Services and Intelligent Chatbots: Current Perspectives and Special Issue Introduction," *IEEE Internet Computing*, 23 (2), 2019. pp. 6-12.
11. S. Shekarpour, E. Marx, S. Auer, & A. Sheth. [RQUERY: Rewriting Natural Language Queries on Knowledge Graphs to Alleviate the Vocabulary Mismatch Problem](#). *31st AAAI Conference on Artificial Intelligence (AAAI-17)*, February 4-9, 2017. San Francisco, California.
12. H.R. Motahar Nezhad, K. Gunaratna, J. Cappi. [eAssistant: Cognitive Assistance for Identification and Auto-Triage of Actionable Conversations](#). *26th International World Wide Web Conference (WWW 2017)*. Perth, Australia. 2017.
13. S. Wijeratne, L. Balasuriya, A. Sheth, D. Doran. [EmojiNet: An Open Service and API for Emoji Sense Discovery](#). *11th International AAAI Conference on Web and Social Media (ICWSM 2017)*. Montreal, Canada. 2017
14. S. Lalithsena, P. Kapanipathi, A. Sheth. [Harnessing Relationships for Domain-specific Subgraph Extraction: A Recommendation Use Case](#). *2016 IEEE International Conference on Big Data*. Washington D.C., Dec. 5-8, 2016.
15. L. Balasuriya, S. Wijeratne, D. Doran, A. Sheth. [Signals Revealing Street Gang Members on Twitter](#). Workshop on Computational Approaches to Social Modeling (ChASM 2016) co-located with *8th International Conference on Social Informatics (SocInfo 2016)*. Bellevue, WA, USA. Nov. 14-17, 2016.
16. S. Wijeratne, L. Balasuriya, A. Sheth, D. Doran. [EmojiNet: Building a Machine Readable Sense Inventory for Emoji](#). Spiro, E. & Ahn, Y. (Eds.). *8th International Conference, SocInfo 2016, Bellevue, WA, USA, November 11-14, 2016, Proceedings, Part I, Vol. 10046*, pp. 527-541. Springer International Publishing. 2016
17. P. Patel, A. Gyrard, D. Thakker, A. Sheth, M. Serrano. [SWoTSuite: A Toolkit for Prototyping Cross-domain Semantic Web of Things Applications](#). 15th International Semantic Web Conference (ISWC 2016). Kobe, Japan: CEUR. October 17 - 21, 2016.
18. K. Yuksel, S. Biggemann, A. Sheth, J. Brunn. [Using Social Data to Understand Brand Development](#). 2016 Direct/Interactive Marketing Research Summit, October 15, 2016. Los Angeles, CA. Marketing EDGE.

19. A. Yazdavar, H. Al-Olimat, T. Banerjee, K. Thirunarayan, J. Pathak, A. Sheth. [Analyzing Clinical Depressive Symptoms in Twitter](#). *23rd NIMH Conference on Mental Health Services Research (MHSR): Harnessing Science to Strengthen the Public Health Impact*. Bethesda, MD. Aug. 1 - 2, 2016.
20. S. Wijeratne, L. Balasuriya, D. Doran, A. Sheth. [Word Embeddings to Enhance Twitter Gang Member Profile Identification](#). *IJCAI Workshop on Semantic Machine Learning (SML 2016)*. New York City, NY: CEUR-WS. July 9-15, 2016.
21. L. Balasuriya, S. Wijeratne, D. Doran, A. Sheth. [Finding Street Gang Members on Twitter](#). *2016 IEEE/ACM Intl. Conference on Advances in Social Networks Analysis and Mining (ASONAM 2016)*, June 8, 2016. San Francisco, CA.
22. A. Sheth. [Ontology-enabled Healthcare Applications Exploiting Physical-Cyber-Social Big Data](#). *Ontology Summit 2016*. Virtual. Apr. 7, 2016.
23. L. Chen, J. Martineau, D. Cheng, A. Sheth. [Clustering for Simultaneous Extraction of Aspects and Features from Reviews](#). *North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL: HLT)*. San Diego, California: NAACL. 2016.
24. S. Perera, P. Mendes, A. Alex, A. Sheth, K. Thirunarayan. [Implicit Entity Linking in Tweets](#). *Extended Semantic Web Conf*. Heraklion, Crete, Greece: Springer, p. 118-132. 2016.
25. K. Gunaratna, K. Thirunarayan, A. Sheth, G. Cheng. [Gleaning Types for Literals in RDF Triples with Application to Entity Summarization](#). Eds: H. Sack, E. Blomqvist, M. d'Aquin, C. Ghidini, S. Ponzetto, C. Lange. *13th Intl. Conference, ESWC 2016*. Heraklion, Crete, Greece: Springer Intl. Publishing, p. 85-100. 2016.
26. P. Anantharam, K. Thirunarayan, S. Marupudi, A. Sheth, T. Banerjee. (2016) Understanding City Traffic Dynamics Utilizing Sensor and Textual Observations. *13th AAAI Conference on Artificial Intelligence (AAAI-16)*, . Phoenix, Arizona. Feb 12-17, 2016
27. A. Jadhav, S. Soni, A. Sheth. [Social Health Signals](#). *Intl. Semantic Web Conference 2015 (ISWC 2015)*, October 10, 2015. Bethlehem, Pennsylvania.
28. S. Cheekula, P. Kapanipathi, D. Doran, A. Sheth. [Entity Recommendations Using Hierarchical Knowledge Bases](#). *Extended Semantic Web Conf 2015 (ESWC 2015)*. Portoroz, Slovenia; 2015.
29. T. Banerjee, P. Anantharam, W. Romine, L. Lawhorne, A. Sheth. [Evaluating a Potential Commercial Tool for Healthcare Application for People with Dementia](#). *International Conference on Health Informatics and Medical Systems (HIMS)*. Las Vegas, Nevada; 2015.
30. S. Lalithsena, L. Tari, A. Von-Reden, B. Wilson, B. Kolowitz, J. Kalafut, S. Gustafson, A. Sheth. [Feedback-Driven Radiology Exam Report Retrieval with Semantics](#). *2015 IEEE International Conference on Healthcare Informatics*. Dallas, Texas. 2015.
31. H. Purohit, G. Dong, V. Shalin, K. Thirunarayan, and A. Sheth. [Intent Classification of Short-Text on Social Media](#). The 8th IEEE SocialCom-2015, Chengdu, Sichuan, China, December 2015
32. S. Wijeratne, D. Doran, A. Sheth, and J. Dustin. [Analyzing the Social Media Footprint of Street Gangs](#). *IEEE Intl Conf on Intelligence and Security Informatics*. May 20-25, 2015. Baltimore, MD.
33. K. Gunaratna, K. Thirunarayan, and A. Sheth. (2015). [FACES: Diversity-Aware Entity Summarization using Incremental Hierarchical Conceptual Clustering](#). *29th AAAI Conference on Artificial Intelligence (AAAI 2015)*. January 25 - 30, 2015. Austin, TX.
34. S. Perera, P. Mendes, A. Sheth, K. Thirunarayan, A. Alex, C. Heid, and G. Mott. [Implicit Entity Recognition in Clinical Documents](#). **SEM 2015: 4th Joint Conference on Lexical and Computational Semantics>*. June 4 - June 5, 2015. Denver, CO.

35. P. Anantharam, T. Banerjee, A. Sheth, K. Thirunarayan, S. Marupudi, V. Sridharan, and S. Forbis. [Knowledge-driven Personalized Contextual mHealth Service for Asthma Management in Children](#). *IEEE 4th International Conference on Mobile Services*. June 27 - July 2, 2015. New York City, NY.
36. P. Desai, A. Sheth, and P. Anantharam. [Semantic Gateway as a Service architecture for IoT Interoperability](#). *IEEE 4th International Conference on Mobile Services*. June 27 - July 2, 2015. New York City, NY.
37. A. H. Asiaee, P. Doshi, T. Minning, S. S. Sahoo, P. Parikh, A. Sheth, and R. L. Tarleton. From Questions to Effective Answers: On the Utility of Knowledge-Driven Querying Systems for Life Sciences Data. [The 9th International Conference on Data Integration in the Life Sciences\(DILS 2013\)](#). Montreal, QC, Canada, Jul. 11-12, 2013. LNCS Volume 7970, pp. 38-45, 2013.
38. P. Anantharam, P. M. Barnaghi, and A. Sheth. Data processing and semantics for advanced internet of things (IoT) applications: modeling, annotation, integration, and perception. *The 3rd Intl Conference on Web Intelligence, Mining and Semantics (WIMS 5)*. Madrid, Spain, 2013.
39. L. Chen, W. Wang, and A. Sheth. [Are Twitter Users Equal in Predicting Elections? A Study of User Groups in Predicting 2012 U.S. Republican Presidential Primaries](#). *Proc. 4th International Conference on Social Informatics (SocInfo '12)*. Lausanne, Switzerland, pp. 379-392 Dec. 5-8, 2012.
40. C. Henson, K. Thirunarayan, and A. Sheth. [An Efficient Bit Vector Approach to Semantics-based Machine Perception in Resource-Constrained Devices](#). *Proc. 11th International Semantic Web Conference (ISWC 2012)*. 7649(I). Boston, Massachusetts, pp. 149-164, Nov. 11-15, 2012.
41. P. Barnaghi, F. Ganz, C. Henson, and A. Sheth. Computing Perception from Sensor Data. *Proc. 2012 IEEE Sensors Conference*. Taipei, Taiwan, pp. 1-4, Oct. 28-31, 2012.
42. M. Panahiazar, A. Ranabahu, V. Taslimi, H. Yalamanchili, A. Stoltzfus, J. Leebens-Mack, and A. Sheth. PhylOnt: A domain-specific ontology for phylogeny analysis. *The 6th IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. Philadelphia, pp. 1-6, Oct 4-7, 2012.
43. S. Perera, C. Henson, K. Thirunarayan, and A. Sheth. Data Driven Knowledge Acquisition Method for Domain Knowledge Enrichment in the Healthcare. *Proc. 6th International Conf on Bioinformatics and Biomedicine (BIBM)*. Philadelphia, pp. 197, Oct 4-7, 2012.
44. M. Panahiazar, A. Ranabahu, V. Taslimi, H. Yalamanchili, A. Stoltzfus, J. Leebens-Mack, and A. Sheth. PhylOnt: A domain-specific ontology for phylogeny analysis. *Proc. 6th International Conference on Bioinformatics and Biomedicine (BIBM)*. Philadelphia, PA, pp. 1-6, 2012.
45. W. Wang, L. Chen, K. Thirunarayan, and A. Sheth. [Harnessing Twitter 'Big Data' for Automatic Emotion Identification](#). *2012 International Conference on Privacy, Security, Risk and Trust, PASSAT 2012, and 2012 International Conference on Social Computing, SocialCom 2012*. Amsterdam, Netherlands, pp. 587-592, Sept. 3-5, 2012. IEEE 2012 ISBN 978-1-4673-5638-1.
46. P. Jain, P. Hitzler, K. Verma, P. Z. Yeh, and A. Sheth. [Moving beyond SameAs with PLATO: partonomy detection for linked data](#). *23rd ACM Hypertext and Social Media conference (HT 2012)*. Milwaukee, WI, pp. 33-42, Jun. 25-28, 2012.
47. P. Anantharam, K. Thirunarayan, and A. Sheth. Topical anomaly detection from Twitter stream. *Web Science 2012*. Chicago, IL, pp. 11-14, Jun. 22-24, 2012.
48. C. Henson and A. Sheth. Active Perception over Machine and Citizen Sensing. *Proc. 2011 Semantic Technology Conference*. San Francisco, CA, Jun. 5-9.

49. L. Chen, W. Wang, M. Nagarajan, S. Wang, and A. Sheth. Extracting Diverse Sentiment Expressions with Target-Dependent Polarity from Twitter. *The 6th International AAAI Conference on Weblogs and Social Media (ICWSM 2012)*. Dublin, Ireland, Jun. 4, 2012.
50. H. Purohit, J. Ajmera, S. Joshi, A. Verma, and A. Sheth. Finding Influential Authors in Brand-Page Communities. *The 6th International AAAI Conference on Weblogs and Social Media ICWSM 2012*. Dublin, Ireland, Jun. 4, 2012.
51. R. Kavuluru, C. Thomas, A. Sheth, V. Chan, W. Wang, A. Smith, A. Sato, and A. Walters. An Up-to-date Knowledge-Based Literature Search and Exploration Framework for Focused Bioscience Domains. *Proc. 2nd ACM SIGHIT International Health Informatics Symposium (IHI 2012)*. Miami, Florida, pp. 275-284, Jan. 28 - 30, 2012.
52. H. Purohit, A. Dow, O. Alonso, L. Duan, and K. Haas. User Taglines: Alternative Presentations of Expertise and Interest in Social Media. *First ASE International Conference on Social Informatics (Social-Informatics 2012)*.
53. Y. Ruan, H. Purohit, D. Fuhry, S. Parthasarathy, and A. Sheth. Prediction of Topic Volume on Twitter. *Proc. 4th Int'l ACM Conference of Web Science (WebSci)*. Evanston, IL, pp. 397-402 (Short Papers), Jun. 22-24, 2012.
54. S. S. Sahoo, A. Sheth, and Guo-Qiang Zhang. Role of semantic web in health informatics. *The 2nd ACM SIGHT Intl Health Informatics Symposium (IHI 2012)*. Miami, FL, Jan. 28-30, 2012.
55. C. A. Henson, K. Thirunarayan, and A. Sheth. An Efficient Bit Vector Approach to Semantics-Based Machine Perception in Resource-Constrained Devices. *Proc. International Semantic Web Conference (1) 2012*. Boston, MA, pp. 149-164, Nov. 11-15, 2012.
56. H. Purohit, Y. Ruan, D. Fuhry, S. Parthasarathy, and A. Sheth. On the Role of Social Identity and Cohesion in Characterizing Online Social Communities. *Proc. CoRR abs/1212.0141*, 2012.
57. H. Purohit, A. Dow, O. Alonso, L. Duan, and K. Haas. User Taglines: Alternative Presentations of Expertise and Interest in Social Media. *Proc. First ASE International Conference on Social Informatics (Social-Informatics 2012)*, 2012.
58. P. E. Anderson, A. H. Ranabahu, D. A. Mahle, N. V. Reo, M. L. Raymer, A. Sheth, Nicholas J. DelRaso. Localized Deconvolution: Characterizing NMR-based Metabolomics Spectroscopic Data using Localized High-throughput Deconvolution. *Proc. Intl Conference on Bioinformatics & Computational Biology (BioComp)*. Las Vegas, NV, Jul. 16-19, 2012.
59. V. Taslimi, A. Stoltzfus, M. Panahiazar, J. Leebens-Mack, H. Yalamanchili, A. Sheth, and Ajith Ranabahu. 2012. PhylOnt: A domain-specific ontology for phylogeny analysis. *Proceedings of the 2012 IEEE International Conference on Bioinformatics and Biomedicine (BIBM) (BIBM '12)*. Washington, DC, USA, 1-6.
60. P. Jain, P. Hitzler, K. Verma, P. Z. Yeh, and A. Sheth. Moving beyond sameAs with PLATO: Partonomy detection for Linked Data. *Proc. 23rd ACM Hypertext and Social Media Conference (HT 2012)*. Milwaukee, WI, USA, Jun. 25th-28th, 2012.
61. A. H. Asiaee, P. Doshi, T. Minning, S. S. Sahoo, P. Parikh, A. Sheth, and R. L. Tarleton. From Questions to Effective Answers: On the Utility of Knowledge-Driven Querying Systems for Life Sciences Data. *Proc. CoRR abs/1210.0595*, 2012.
62. A. K. Joshi, P. Jain, P. Hitzler, P. Z. Yeh, K. Verma, A. Sheth, and M. Damova. Alignment-Based Querying of Linked Open Data. *Proc. On the Move Conferences*, pp. 807-824, 2012.
63. P. Anantharam, A. Smith, J. Pschorr, K. Thirunarayan, and A. Sheth. Demonstration: Dynamic Sensor Registration and Semantic Processing for Ad-hoc Mobile Environments. *Proc. SemMOB SSN 2012*, pp. 127-130, 2012.

64. V. Nguyen, O. Bodenreider, T. Rindfleisch, and A. Sheth. iExplore: A provenance-based application for exploring biomedical knowledge. *Proc. 8th International Conference on Data Integration in the Life Sciences (DILS 2012)*, Jun. 28-29, 2012.
65. H. Purohit, A. Hampton, V. Shalin, A. Sheth, and J. Flach. What kind of #communication is Twitter? A psycholinguistic perspective on communication in Twitter for the purpose of emergency coordination. *Proc. NSF SoCS Symposium, 2012*.
66. H. Purohit, Y. Ruan, A. Joshi, S. Parthasarathy, and A. Sheth. Understanding User-Community Engagement by Multifaceted Features: A Case Study on Twitter. Workshop on Social Media Engagement. *Proc. 20th ACM International World Wide Web Conference (WWW)*. Hyderabad, India, Mar. 28 - Apr. 1, 2011.
67. P. Jain, P. Z. Yeh, K. Verma, R. Vasquez, M. Damova, and P. Hitzler, A. Sheth. Contextual Ontology Alignment of LOD with an Upper Ontology: A Case Study with Proton. *Proc. 8th Extended Semantic Web Conference (ESWC 2011)*. Heraklion, Greece, pp. 80-92, May 29-Jun. 2, 2011.
68. M. Nagarajan, A. Sheth, and S. Velmurugan. Citizen Sensor Data Mining, Social Media Analytics and Development Centric Web Applications. *Proc. 20th ACM International World Wide Web Conference (WWW)*, Mar. 28 - Apr. 1, 2011. Hyderabad, India, ACM.
69. A. Manjunatha, P. Anderson, A. Ranabahu, and A. Sheth. Identifying and Implementing the Underlying Operators for Nuclear Magnetic Resonance based Metabolomics Data Analysis. *Proc. 3rd International Conference on Bioinformatics and Computational Biology*. New Orleans, Louisiana, USA, pp. 205-209, Mar. 23 - 25, 2011.
70. V. Nguyen, O. Bodenreider, T. Minning, and A. Sheth. The knowledge-driven exploration of integrated biomedical knowledge sources facilitates the generation of new hypotheses. *Proc. Linked Science*. Bonn, Germany, Oct. 24, 2011.
71. S. S. Sahoo, V. Nguyen, O. Bodenreider, P. Parikh, T. Minning, and A. Sheth. A unified framework for managing provenance information in translational research. *Proc. BMC Bioinformatics 12*, pp. 461, 2011.
72. D. Cameron, R. Kavuluru, O. Bodenreider, P. N. Mendes, A. Sheth, and K. Thirunarayan. Semantic Predications for Complex Information Needs in Biomedical Literature. *Proc. 2011 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. Atlanta, GA, pp. 512-519, Nov 12-15, 2011.
73. V. Cross, C. Stroe, X. Hu, P. Silwal, M. Panahiazar, I. F. Cruz, P. Parikh, and A. Sheth. Aligning the Parasite Experiment Ontology and the Ontology for Biomedical Investigations Using Agreement Maker. *Proc. International Conference on Biomedical Ontology (ICBO 2011)*. Buffalo, NY, Jul. 26-30, 2011.
74. A. Ranabahu, E. M. Maximilien, A. Sheth, and K. Thirunarayan. A domain specific language for enterprise grade cloud-mobile hybrid applications. *Proc. The 11th Workshop on Domain-Specific Modeling 2011*. Portland, OR, pp. 77-84, Oct 23-24, 2011.
75. C. A. Henson, K. Thirunarayan, A. Sheth, and P. Hitzler. Representation of Parsimonious Covering Theory in OWL-DL. *Proc. The 8th International Workshop on OWL: Experiences and Directions (OWLED 2011)*. San Francisco, CA, Jun. 5-6, 2011.
76. A. Ranabahu, P. Parikh, M. Panahiazar, A. Sheth, and F. J. Logan-Klumpler. Kino: A Generic Document Management System for Biologists Using SA-REST and Faceted Search. *Proc. The 5th IEEE Intl Conf on Semantic Computing (ICSC 2011)*. Palo Alto, CA, pp. 205-208, Sept. 19-21, 2011.
77. P. Kapanipathi, F. Orlandi, A. Sheth, and A. Passant. Personalized Filtering of the Twitter Stream. *2nd workshop on Semantic Personalized Information Management at ISWC 2011*. Koblenz, Germany, Oct. 23-27 2011
78. P. Desai, C. A. Henson, P. Anantharam, and A. Sheth. Demonstration: SECURE - Semantics Empowered ResCUE Environment. *Proc. SSN 2011*, pp. 115-118, 2011.

79. P. Kapanipathi, J. Anaya, A. Sheth, B. Slatkin, and A. Passant (2011-b), Privacy-Aware and Scalable Content Dissemination in Distributed Social Networks. *International Semantic Web Conference (ISWC)*. Koblenz, Germany, Oct. 23-27 2011.
80. P. Jain, P. Z. Yeh, K. Verma, R. G. Vasquez, M. Damova, P. Hitzler, and A. Sheth. Contextual ontology alignment of LOD with an upper ontology: a case study with proton. *Proceedings of the 8th Extended Semantic Web (ESWC '11)*. Heraklion, Greece, pp. 80-92.
81. V. Cross, C. Stroe, X. Hu, P. Silwal, M. Panahiazar, I. F. Cruz, P. Parikh, A. Sheth. Aligning the Parasite Experiment Ontology and the Ontology for Biomedical Investigations Using Agreement Maker. *International Conference on Biomedical Ontology (ICBO 2011)*. Buffalo, New York, Jul. 26-30, 2011.
82. C. J. Thomas, W. Wang, P. Mehra, D. Cameron, P. N. Mendes, A. Sheth. What Goes Around Comes Around: Improving Linked Open Data through On-Demand Model Creation. *Proc. WebSci10: Extending the Frontiers of Society On-Line*. Raleigh, NC, Apr. 26-27th, 2010.
83. K. Gunaratna, P. Anderson, A. Ranabahu, A. Sheth. A Study in Hadoop Streaming with Matlab for NMR Data Processing. *Proc. 2nd IEEE International Conference on Cloud Computing Technology and Science*. Indianapolis, Indiana, pp. 786-789, Dec. 3, 2010.
84. A. Ranabahu, A. Sheth. Semantics Centric Solutions for Application and Data Portability in Cloud Computing. *Proc. 2nd IEEE International Conference on Cloud Computing Technology and Science*. Indianapolis, Indiana, pp. 234-241, Nov 30 - Dec 3, 2010.
85. P. Mendes, A. Passant, P. Kapanipathi, A. Sheth. [Linked Open Social Signals](#). *Proc. 2010 IEEE/WIC/ACM Intl Conf.* York University. Toronto, Canada, Aug. 31-Sept. 3, 2010.
86. P. Anantharam, C. A. Henson, K. Thirunarayan, A. Sheth. Trust Model for Semantic Sensor and Social Networks: A Preliminary Report. *Proc. National Aerospace & Electronics Conference (NAECON)*. Dayton, Ohio, Jul. 14-16th, 2010.
87. M. Nagarajan, H. Purohit, A. Sheth. A Qualitative Examination of Topical Tweet and Retweet Practices. *Proc. 4th International AAAI Conference on Weblogs and Social Media (ICWSM 2010)*. Washington D.C., pp. 295-298, May 23-26, 2010.
88. W. Wang, C. Thomas, A. Sheth, Victor Chan. [Pattern-Based Synonym and Antonym Extraction](#). 48th ACM Southeast Conference, *Proc. ACM Southeast Regional Conference (ACMSE 2010)*. Oxford Mississippi, Apr. 15-17, 2010.
89. D. Cameron, P. N. Mendes, A. P. Sheth, V. Chan. [Semantics-Empowered Text Exploration for Knowledge Discovery](#). *Proc. 48th ACM Southeast Conference (ACMSE 2010)*. Oxford Mississippi, pp. 14. Apr. 15-17, 2010.
90. S. S. Sahoo, O. Bodenreider, P. Hitzler, A. Sheth and K. Thirunarayan. Provenance Context Entity (PaCE): Scalable provenance tracking for scientific RDF data. *Proc. 22nd International Conference on Scientific and Statistical Database Management (SSDBM)*. Heidelberg, Germany, pp. 461-470, Jun. 30-Jul. 2, 2010.
91. M. Nagarajan, H. Purohit, A. Sheth. A Qualitative Examination of Topical Tweet and Retweet Practices. *Proc. 4th International AAAI Conference on Weblogs and Social Media Posters (ICWSM 2010)*. Washington, D.C., pp. 295-298, May 23-26, 2010.
92. D. Cameron, B. Aleman-Meza, I. B. Arpinar, S. L. Decker, A. Sheth. [A Taxonomy-Based Model for Expertise Extrapolation](#). *Proc. 2010 IEEE International Conference on Semantic Computing (ICSC 2010)*. Pittsburgh, PA, pp. 333-340, 2010.

Rest of ~100 publications in this list removed for brevity.

Sections removed for brevity:

- Workshop and Symposium Publications [60+]

- Other Publications: Conference Proceedings [55+] (Refereed or Invited Short Papers/Abstracts, Demo Papers, Challenge Papers)
- Other Publications: Magazine Guest Issue Articles and Invited Articles [40+]
- Editorship of International Conference and Workshop Proceedings [22]
- Editorship of Special Issues of Journals and Technical Society Magazines, Dagstuhl (most with introductions/state-of-the-art reviews) [~20]
- Industry Courses and Course Series

Patents

1. N. Shah, A. Sheth, S. Bhatt, R. Goswami, V. Shah, R. Kanani, A. Patel, P. Pathak. Data processing system and method for computer-assisted coding of natural language medical text, US Patent 10,509,889, 17 December 2019.
2. Patent co-inventor (Sheth, Gomadam, and Nagarajan). “Methods and Systems for Analysis of Real-Time User-Generated Text Messages.” US 20120042022 A1Feb 16, 2012, Priority: Feb 17, 2010.
3. Patent co-inventor (Sheth, Avant, and Bertram). “System and Method for Creating Semantic Web and Its Applications in Browsing, Searching, Profiling, Personalization and Advertisement.” US 6311194 B1, Oct. 30, 2001. (Priority: Mar 15, 2000).
4. Patent co-inventor (Marcus, Shah, Kshitij, Sheth, Shklar, Surak, Thatte). “Method and system for providing uniform access to heterogeneous information.” (Patent publication number WO 1997015018 A1), Apr. 24, 1997 (Priority date: Oct 16, 1995).
5. Patent co-inventor (Georgakopoulos, Rusinkiewicz, Sheth) “Method for enforcing the serialization of global multidatabase transactions through coming only on consistent subtransaction serialization by the local database managers.” (Patent application number 5,241,675), Aug. 31, 1993.

Professional or Scholarly Activities – Technologies and Commercialization

From ideas and research to real-world: applications, deployed systems, and commercial products/services.

In most of my activities, I seek to traverse the entire innovation cycle. This may start with conceiving ideas while walking and brainstorming with students or partners, then lead to a series of activities that typically involve:

- Bringing resources (which usually takes the form of writing proposals);
- Leading and supervising efforts involving training, teambuilding and prototype building;
- Understanding users and customers, or partners in our inter-disciplinary research;
- System building (which often lends itself to an open source tool(s) and datasets, licensed technologies and patents, operationally deployed applications and software, or commercial products and services).

Below is a brief, incomplete list of some of the **activities I have led that have gone from industry or academic research to the real world.**

Name/Years	Brief Technical Description (Key Collaborator and/or Contributor)	Role/Outcomes/Form of Real-world Use	More Information: Publications and/or Presentations (Representative)
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<p>Twitris: 2009-Present</p>	<ul style="list-style-type: none"> • Twitris- a System for Collective Social Intelligence • Demo 	<ul style="list-style-type: none"> • Founder- Cognovi Labs: Commercial version completed in Dec. 2015; Licensed to set up Cognovi Labs in Feb. 2016- received \$2.3 M funding by end of 2017. • Company in full operation, former students as key employees 	<ul style="list-style-type: none"> • Ohio Faculty Council Commercialization award (runner up) • Patent awarded, patent published • Over 40 related publications • Multiple demos, chapter, multiple dissertations/theses
<p>ezCAC, ezCDI, ezFIND: 2010-Present</p>	<ul style="list-style-type: none"> • A Semantic Clinical Natural Language Understanding Engine being developed as part of collaborative research project funded by ezDI at Kno.e.sis. 	<p>Co-founder.</p> <ul style="list-style-type: none"> • ezCAC released at AHIMA 2013; multiple enterprise (Hospital) customers 	<ul style="list-style-type: none"> • Patent published • Publicaitons starting BIBM2012
<p>VideoAnywhere, Taalee Semantic Search Engine, Taalee MediaAnywher e, Voquette SCORE, Semagix FREEDOM: 1998-2006</p>	<ul style="list-style-type: none"> • In an industry funded project, VideoAnywhere set out to become a set-top based manager of videos on local systems, interactive TV and broadband/Web (Clemens Bertram). • In Java-based implementation, semantic technology (domain model associated metadata) was the key differentiator. • As broadband content on grew, we developed MediaAnywhere, a semantic-faceted search engine which exploited domain specific ontologies with automatically aggregated background knowledge and disambiguated (somewhat similarly to GKB) with automatic semantic annotation of textual and media content. 	<ul style="list-style-type: none"> • Roles: Taalee: Founder, COB, CEO; Voquette: Co-founder, Exec.VP; Semagix: SrVP-all R&D, later Chief Scientist. • Licensed VideoAnywhere to found VC funded Taalee (1999). We initially developed the MediaAnywhere Faceted Semantic Search Engine for broadband content on Web during 1999-2001 • Example customers: Voquette, Redband Broadcasting). • Upon merger with Voquette (2002), we developed SCORE, a semantic web application development platform and digital content delivery platform 	<ul style="list-style-type: none"> • Product/System papers: ICo2, SEEO2 • Application papers: CIKMo2, IASW05, SAIo6 • Presentations: 2000Keynote, 2001Keynote, 2003Keynote • (Probably the first keynotes on SW and also on commercial SW products and/or services.)

	<ul style="list-style-type: none"> • Search was followed by semantic browsing, connecting the dots and more focused application build over semantic technology. • More details: System and method for creating a semantic web and its applications in browsing, searching, profiling, personalization and advertising, 2000-2001. • Taalee was the first VC funded software/internet company in Athens and surrounding region, and paid \$6+ million in payroll and other direct economic activities in the economy of Athens, GA before the company was acquired and moved to Atlanta, GA. 	<ul style="list-style-type: none"> • Also developed apps like Passenger Threat Assessment; customers include a pharmaceutical company and NASA). • Upon merger with Semagix (2004), we develop FREEDOM, and focused on selling vertical industry applications, with biggest success in deploying Know Your Customer (KYC) in a majority of world's top 30 financial institutions. • I left Semagix after its acquisition by Fortent in 2006; it is now Actimize: some original Taalee employees and apps like KYC were still employees as of 2012. 	
<p>InfoHarness: 1993-2000</p>	<ul style="list-style-type: none"> • InfoHarness was very early in adding metadata to heterogeneous data (documents of different formats, source code, etc.). • Supported browser-based Web search (i.e., attributed-based or faceted search) of annotated Web accessible and Intranet documents. • Its 1993, 1994 implementation used Mozilla (Leon Skylar; later Leon led development of GeoHarness). 	<ul style="list-style-type: none"> • InfoHarness was commercialized as AdaptX/Harness in 1995 (Kshitij Shah). • Remained available until 2000 and was used in Baby Bells. • My biggest commercialization-related disappointed was the failure in convincing Bellcore business managers to target Web search market rather than limiting it to telecom apps. 	<ul style="list-style-type: none"> • InfoHarness early system: WWW2004, CAiSE95; Commercial version: IC99

Also see [Open Source](#) for tools and data sets, and standards activities

Interviews and Biographical Profiles [75+] (more complete list at: <http://knoesis.org/amit/media>). Sample venues: WIRED, TechCrunch, TIME Magazine, The Atlantic, BBC News, Motherboard, Fast Company, Hindustan Times, The Hindu,, The Daily Mail (UK), O'Reily Media, CNBC and may TV stations.

Journal and Book Series Editorship [15+]

1. **Editorial Board of Academic Editors**, *PeerJ Computer Science*, Jul. 2014–Present. ISSN: 2167-8359.
2. **Member of the Editorial Board**, *IEEE Internet Computing*, May 2006–Present.
3. **Member of the Editorial Board**, *Applied Ontology: An Interdisciplinary Journal of Ontological Analysis and Conceptual Modeling*, IOS Press, 2005–Present. ISSN: 1570-5838.
4. **Member of the Editorial Board**, *Journal on Web Semantics: Science, Services and Agents on the World Wide Web*, 2003–Present.
5. **Co-Editor in Chief**: *Journal on Distributed and Parallel Databases*, 2002-2016.
6. **Series Editor** (with A. Elmagarmid), *Advances in Database Systems*, Springer, Jul. 2007–2008. ISSN: 1386-2944.
7. **Joint Editor-in-Chief**, *Journal on Distributed and Parallel Databases*, Springer, Jun. 2007–Dec. 2016. ISSN: 0926-8782. **Member of Editorial Advisory Board**, thereafter.
8. **Founding Editor-in-Chief**, *Journal on Semantic Web and Information Systems (IJSWIS)*, Idea Group Publishing, 2005–2014.
9. **Series Editor** (with Ramesh Jain), *Semantic Web and Beyond: Computing for Human Experience*, Springer, 2004.

Earlier items in this list are removed for brevity.

Key Committee/Honorary Memberships [9]

2018	Member	IEEE Fellow Selection Committee
2010 – 2013	Co-Chair	W3C XG on Semantic Sensor Networking
2004 – 2013	Advisory Committee	World Wide Web Consortium (W3C)
2011 - 2012	Board of Directors	SSAIE Summer School on Service-Oriented Computing

Earlier items in this list are removed for brevity.

Technical Meeting (Conferences, Workshop) Organization [70+]

Dec. 2018	General Co-Chair	2018 Web Intelligence conference, Santiago, Chile (WI'18).
Oct. 2018	Advisor	9 th Intl. Semantic Sensor Networking Workshop @ ISWC 2018.
Aug. 2017	General Co-Chair	28th International Conference on Database and Expert Systems Applications (DEXA 2017).
Jun. 2018	Co-Chair	<u>SWeTI</u> : Semantic Web of Things for Industry 4.0 @ ESWC 2018
Feb. 2018	Co-Chair	<u>SmartIoT Workshop</u> @ AAAI 2018: AI enhanced IoT data processing for Intelligent Applications

Oct. 2015	Advisor	1st Joint International Workshop on Semantic Sensor Networks and Terra Cognita (SSN-TC 2015) at ISWC2015, October 11, 2015, Bethlehem, PA.
Oct. 2014	General Co-Chair	2nd International Workshop on the Internet of Things (C-IoT 2014) at CollabCoM2014
Aug. 2011	Co-Chair	Mining Data Semantics Workshop (MDS 2011)
Jul. 2011	Director	Summer School on Service Oriented Computing (SummerSoc)
May 2011	Advisory Committee	International Conference on Web Intelligence, Mining and Semantics (WIMS 2011)
Nov. 2010	Advisor	3rd International Workshop on Semantic Sensor Networks (SSN10)
Sept. 2010	Co-Organizer	1st International Workshop on Traceability and Compliance of Semi-Structured Processes (TC4SP2010) at BPM2010
Jan. 2010	Co-Organizer	Semantic Challenges in Sensor Networks
2008 – 2010	Co-Chair	W3C Semantic Sensor Networks Incubator Group
Nov. 2009	Program Co-Chair	International Workshop on Community-Based Evolution of Knowledge-Intensive Systems (COMBEK'09)
Oct. 2009	Steering Committee Chair, Program Committee Member	2nd International Workshop on Semantic Sensor Networks at 8th International Semantic Web Conference (ISWC 2009)
May 2009	Steering Committee Chair, Program Committee Member	1st International Workshop on the role of Semantic Web in Provenance Management at 8th International Semantic Web Conference (ISWC 2009)
May 2009	Co-Organizer	Sensor Web Enablement
Nov. 2008	Scientific Steering Committee, Organizing Committee	International Workshop on Community-Based Evolution of Knowledge-Intensive Systems (COMBEK '08)
Oct. 2008	Program Committee Chair	7th International Semantic Web Conference (ISWC 2008)
Sept. 2008	Steering Committee Chair	Advances in Semantics for Web Services 2008 (semantics4ws 2008)
Jul. 2008	Steering Committee	2nd IEEE International Conference on Semantic Computing (ICSC 2008)
Apr. 2008	Steering Committee	2nd International Workshop on Web Service Composition and Adaptation (WSCA-2008) at 6th IEEE International Conference on Services Computing (SCC-2008)
Apr. 2008	Co-organizer	WWWo8 International Workshop on Context Enabled Source and Service Selection, Integration, and Adaptation (CSSSIA 2008)
Mar. 2008	Co-organizer	Association for the Advancement of Artificial Intelligence (AAAI) 2008, Spring Symposium.
Sept. 2007	Co-organizer	2nd Workshop on Advances in Semantics for Web Services (semantics4ws'07) at BPM 2007

Jul. 2007	General Chair	4th International Workshop on Semantic Web for Services and Processes (<u>SWSP 07</u>) at <u>IEEE International Conference on Web Services</u>
Jul. 2007	Co-organizer	1st International Workshop on Web Service Composition and Adaptation (<u>WSCA-2007</u>) at <u>IEEE International Conference on Web Services</u>
Feb. 2007	Co-Organizer	<u>Autonomic Web Services: Dagstuhl Seminar 07061</u>

Earlier items in this list are removed for brevity.

Other Organization Committee Roles (Advisory committee, Steering Committee) [43]

This subsection deleted for brevity.

(Senior) Program Committee Member for International Conferences and Workshops [250+]. Details removed for brevity.

Guest (co)Editor of Journal/Magazine Special Issues; (selected)

Mar/Apr 2019	Co-Guest Editor: Special Issue on “Cognitive Services and Intelligent Chatbots,” IEEE Internet Computing
July 2018	Co-Guest Editor: Special Issue on "Processing Social Media in Real-Time," Information Processing & Management (IP&M), Elsevier.
Jan/Feb 2018	Co-Guest Editor: Special Issue on “IoT-Enhanced Human Experience,” IEEE Internet Computing
June 2016	Co-Guest Editor: <u>Smart cities – enabling services and application</u> , Journal of Internet Services and Applications, 7:6, June 2016.
May 2015	Special Issue on Dataset Profiling and Federated Search for Linked Data (<u>IJSWIS-DP2014</u>)
Feb. 2014	AI Magazine Special Issue on Semantics for Big Data 2013 (<u>S4BD-SI 2013</u>)
July 2013	Tutorials at the Seventh International AAAI Conference on Weblogs and Social Media (<u>ICWSM-13</u>)
June 2012	IJSWIS Special Issue on Visualisation of and Interaction with Semantic Web Data
Feb. 2013	International Journal on Semantic Web and Information Systems, Special Issue on Semantic Social Media Dynamics (<u>IJSWIS-SI-SSMD13</u>)
Dec. 2011	IJSWIS Special issue on Mining Associations and Patterns from the Semantic Data

Other Services (Sessions, Reviews, Funding Panels)

Services to National and international funding Agencies as Proposal Reviewer for the national funding agencies of Israel, the Netherlands, Ireland, Austria, Canada, Singapore, Switzerland, Belgium, European Union, and others (e.g., German-Israel Foundation) – details removed for brevity.

Ongoing & frequent	US National Science Foundation , since 1987 (reviewed numerous research proposals for funding). Served on many panels and provided strategic input (e.g., CISE Area of Study on Web Information Systems in 2005). National Institute of Health , since 2007.
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Chaired Technical Sessions at various international conferences (numerous, not fully documented)

Services to Journals as Referee (practically all high quality journals in my area of research; details removed for brevity)

Curriculum Development (Initiatives and Courses)

Details removed for brevity.

External Curriculum Advising/Accreditation:

Program Evaluator/Accreditation Visitor for the Computer Sciences Accreditation Board (sponsored by IEEE and ACM), 1993–1998.

Instruction and Academic Services

Supervision of Student Research as Dissertation/Thesis Advisor: Advised 30 PhD students (dissertations) and 35+ MS students (Thesis) with exceptional outcomes. Employed at top universities in tenured/tenure track positions (NCSU, CWRU, GMU) and companies – mostly research labs (IBM Research, FB, LinkedIn, Amazon, Walmart Labs, Samsung Research, [29 PhDs; 35 MS Thesis]. External advisory committee of several international PhD students. Details at <http://knoesis.org/amit/students/> ~15 current PhD students.

Post-Doctoral and Research Fellow Supervision (with next appointment)

Post-Doc (Where & When)	Institution, Year	Title of Research Project	Next Position
Yanbo Han UGA: 1995–1997	Technical University of Berlin, 1995	METEOR: Healthcare Information Infrastructure Program—Enterprise Workflow Automation	Professor, North China University of Technology
Shengli Wu UGA: 2002-2002	Southeast University, Nanjing, China, 2000	Extending METEOR with workflow reuse, adaptation, and collaboration	Lecturer, School of Computing and Mathematics, University of Ulster
I. Budak Arpinar UGA: 1998–2001	METU–Turkey, 1997	METEOR: Healthcare Information Infrastructure Program—Enterprise Workflow Automation	Asst. Prof. University of Georgia (now Assoc. Prof.)
Farshad Hakimpour UGA: 2005–2006	Univ. of Zurich, 2003	SemDis: Discovering Complex Relationships in Semantic Web	Asst. Prof., Tehran University (now full prof.)

Post-Doctoral and Research Fellow Supervision (with next appointment)

Post-Doc (Where & When)	Institution, Year	Title of Research Project	Next Position
Ramakanth Kavaluru WSU: 2009–2011	University of Kentucky, 2009	SemDIS: Discovering Complex Relationships in the Semantic Web	Asst. Prof., University of Kentucky
Kera Z. Watkins WSU: 2012-2013	North Carolina St. U, 2006	PREscription Drug abuse Online Surveillance and Epidemiology	Lecturer, Wright State University
Priti Parikh WSU: 2009– 2011	Virginia Polytechnic Institute and State University, 2007	Semantics and Services Enabled Problem Solving Environment for Trypanosoma cruzi	Research Director and Asst. Prof., Surgery, Wright State University
Tanvi Banerjee WSU: 2014-2016	U. of Missouri, 2014	SoCS: Collaborative Research: Social Media Enhanced Organizational Sensemaking in Emergency Response	Asst. Prof., Wright State University
Saeedeh Shekarpour WSU: 2016 - Present	University of Bonn, 2014	HazardSEES, Harassment on Social Media, Kno.e.sis Knowledge Graph Platform	Asst. Prof., Univ. of Dayton

Abridged (several sections removed). Full CV (95+ pages) available if needed.