



Large Scale Distributed Information Systems Lab
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The University of Georgia

Amit P. Sheth

Research Areas

Education

Academic Positions:

Entrepreneurship and Industry Employment

Keynote and Plenary Talks

Conference and Workshop Invited Talks

Chief Guest/Speaker at Special Events

Publications

- Books Authored or Co-Authored

- Books Edited and Co-Edited

- Editorship of International Conference and Workshop Proceedings

- Editorship of Special Issues of Journals and Technical Society Magazines

- Chapters in Books

- Journal Papers (Refereed)

- Conference Publications (Referred)

- Conference Publications (Invited)

- Invited or Other Journal Publications

- Workshop and Symposium Publications (Refereed)

- Other Publications: Conference Proceedings (refereed or invited short papers/abstracts)

- Other Publications: Articles in informal proceedings or non-referred papers

Creative contributions other than formal publications (since 1994)

- Interviews and Profiles

- Technology Licensing, Commercialization and Deployed Systems

Research Funding / Grants and contracts received as the PI (since 1994)

Recognition, outstanding achievements and honorary appointments

Professional or Scholarly Activities

- Editorship

- Tutorial Presentations at International Conferences

- Industry Courses and Workshops

- Panel Presentations at Conferences and Workshops

- Invited and Colloquia Talks

- Technical Meetings (Conferences, Workshop) Organization

- Program Committee Member for the International Conferences and Workshops

- Other Services (Sessions, Reviews, Funding Panels, Societies)

Curriculum Development (Initiatives and New Courses)

Instruction and Academic Services (since 1994)

Research Areas

Semantic Web and Semantic Applications (knowledge discovery and intermediation, multi-ontology and complex relations, search/directory/personalization/analytics, etc.), Management of Rich Media Content and Information Sources, Digital Libraries, Pan-Web and Enterprise Information Interoperability (incl. Federated Information Systems, Multi-agent and information brokering architectures, ontology and metadata management), Web and Business Processes (Work Coordination and Collaboration Systems, Dynamic Trading Processes in E-Commerce, Multi-organization Business Processes and Workflow Management, Web-based Asynchronous and Synchronous Collaboration). Significant collaborations and applications in Bioinformatics, GIS, Healthcare, Financial, and National Security domains.

Education

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

Academic Positions/Appointments

1994 – ...	Director, Large Scale Distributed Information Systems (LSDIS) Lab, Athens, GA.
1998 – ...	Professor, Department of Computer Science, University of Georgia, Athens, GA (on partial sabbatical during 2000 and 2001).
1994 – 1998	Associate Professor, Department of Computer Science, University of Georgia, Athens, GA.
2005-	Member, Biomedical & Health Sciences Institute, UGA.
2004	Member, Institute of Bioinformatics, UGA.
2001 – present	Member/Professor, Faculty of Engineering, University of Georgia.
May 93 – June 93	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

Aug 2002 – present	Co-founder/CTO (part time) Semagix , Inc.
June 2001 – Aug 2002	Co-founder/CTO/Exec.VP/, Voquette, Inc. [Merger led to Semagix]
Aug 1999 – May 2001	Founder, Chairman and CEO, Taalee, Inc. [Acquire by Voquette]
1997 – 1999	Founder and President, Infocsm Inc., S-Corporation, Georgia.
1989 – 1994	Member of Technical Staff, Systems Principles & Research, Morristown, NJ and Computer Systems Integration, Bell Communications Research. 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 Center, Honeywell,
 Minneapolis, MN.

Keynote and Plenary Invited Talks at International Conferences/Workshops and Significant National/International Meetings

1. "[Semantics Enabled Industrial and Scientific Applications: Research, Technology and Deployed Applications](#)", [First Online Metadata and Semantic Research Conference](#), November 21-30, 2005.
2. "Semantics for Scientific Experiments and the Web– the implicit, the formal and the powerful," Featured Talk, [BISCSE 2005: Forging New Frontiers](#), "Where Fuzzy Began," Berkeley CA, November 2-6, 2005.
3. "[Semantic Web and Semantic Web Services: From Research and Technology to Deployed Applications for Enterprises and Scientific Research](#)," Keynote at the IFIP Working Conference on Industrial Applications of Semantic Web ([IASW - 2005](#)), Jyväskylä, Finland, August 25-27, 2005.
4. "Web Services to Semantic Web processes: Investigating Synergy between Practice and Research," Keynote Address, The First European Young Researchers Workshop on Service Oriented Computing, April 21, 2005, Leicester , U.K. [Abstract](#), [Presentation](#)
5. "[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, December 16, 2003, Berkeley, CA, USA.
6. "[What can Semantic do for Bioinformatics](#)," Keynote at the Russian Conference on Digital Libraries (RCDL 2003), Saint Petersburg, Russia, October 29, 2003.
7. "[Semantics for Bioinformatics: What, Why and How of Search, Integration and Analysis](#)," Semantic Web Technologies for Science and Engineering Workshop, Sanibel Island, FL, October 20, 2003.
8. "[Semantic Web in Action \(also known as Ontology-driven information search, integration and analysis\)](#)," [Net Object Days 2003](#) and [MATES03](#), September 23, 2003, Erfurt, Germany.
9. "[From Semantic Search to Analytics and Discovery on heterogeneous content: Changing focus from Documents and Entities to Relationships](#)," Keynote at the First International Workshop on [Semantic Web and Databases](#), September 8, 2003.
10. "[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.
11. Ontology Driven Information Systems in Action (Capturing and Applying Existing Knowledge to Semantic Applications), *Invited Talk* [at Sharing the Knowledge- International CIDOC CRM Symposium](#), March 26-27, 2003, Washington, DC.
12. "[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, November 25, 2002.
13. "Semantic Content Management for Enterprises and National Security," *Keynote Address* at the [Content and Semantic-based Information Retrieval](#) –at the 6th World Multi-conference on Systemics, Cybernetics, and Informatics (SCI 2002), Orlando, FL, USA, July 14, 2002.
14. "[Content Management, Metadata, and Semantic Web](#)," Inaugural *Keynote address*, [NetObjectDAYS](#), Erfurt, Germany, September 11, 2001.
15. "[Semantic Web and Information Brokering](#): Opportunities, Early Commercialization, and

- Challenges,” *Keynote Address* at the [Workshop on Semantic Web: Models, Architectures and Management](#), Lisbon, September 21, 2000
16. "Information Brokering in Digital Media," *Keynote Address* at the 3rd Intl. Workshop on Cooperative Information Agents CIA-99, Uppsala, Sweden, July 31 - August 2, 1999.
 17. "Semantic Interoperability and Information Brokering in Global Information Systems," *Keynote Address* at [3rd IEEE Metadata Conference](#), Bathesda, MD, April 6-7, 1999.
 18. "Workflow Process management and Enterprise Application Integration in Healthcare," *Keynote Address*, [IEEE Workshop on Enterprise Networking and Computing in Healthcare Industry](#) (Healthcom 99), Sydney Australia, January 11, 1999.
 19. "Real-world Relevant Research Challenges in Workflow," *Keynote Address* at the EDBT Workshop on Workflow Management Systems, Valencia, Spain, March 27-28, 1998.
 20. "Pragmatics Driven Research Issues in Data and Process Integrity in Enterprises", *Keynote Address* at IFIP WG 11.5 Conference on Integrity and Control in Information Systems, Zurich, Switzerland, December 4 - 5, 1997.
 21. "Search, Access, Analysis and Fusion of Heterogeneous Information Sources: The InfoQuilt Approach", *Keynote Address* at the International Conference on Interoperating Geographical Information Systems (Interop '97), Santa Barbara, December 3, 1997.
 22. "From Contemporary Workflow Process Automation to Adaptive and Dynamic Work Activity Coordination and Collaboration", *Keynote Address* at the Workshop on Workflows in Scientific and Engineering applications, Toulouse, France, September 1997.
 23. "Schemata for Interoperable Database Systems," and "So Far (Schematically) yet So Near (Semantically)," *Keynote Address* at the IFIP DS-5 Conference on Semantics of Interoperable Database Systems, Lorne, Australia, November 1992.

Conference and Workshop Invited Talks

24. "Autonomic Web Process," vision paper presented at the 3rd International Conference on Service Oriented Computing, Amsterdam, The Netherlands, December 13, 2005.
25. "Semantic Technology in the Real World: Experiences and Lessons based on Enterprise Semantic Applications," Semantic Technology Conference 2005, San Francisco, CA, March 8, 2005.
26. "[Semantic Web Technology in Support of Bioinformatics for Glycan Expression](#)," W3C Workshop on Semantic Web for Life Sciences, October 28, 2004, Cambridge MA.
27. "From Semantic Search & Integration to Analytics," KMWorld 2004, Santa Clara, CA, October 26-28, 2004.
28. "Semantic Technology in the Real World: Experiences and Lessons based on Commercialization of Academic Research & Industry Applications," Dagstuhl Seminar on Semantic Interoperability and Integration, Dagstuhl, Germany, September 21, 2004.
29. "Semantic Web Technology Ontology Testbed," Ontology In Action Workshop, Banff Alberta, Canada June 21st 2004.
30. "Semantic Visualization: Interfaces for exploring and exploiting ontology, knowledgebase, heterogeneous content and complex relationships, NASA Virtual Iron Bird Workshop, Monterey, April 2, 2004.
31. "Ontology-driven Integration and Analysis for Semantic Applications in Business Intelligence and National Security", Ontology and Semantic Web Technical Exchange Meeting, MITRE , McLean, VA June 12-13, 2003.
32. "Database and Information Systems Research for Semantic Web and Enterprises: Review of

- the Amicalola Workshop,” and “Snapshot of the Semantic Web Commercial State of the Art,” Invited talk at the [Science on the Semantic Web, Building a New Generation of Environmental Information Systems](#), Rutgers University, Newark, NJ, October 24, 2002.
33. “Process Composition: Quality of Service Specification Semantics, and Adaptation,” invited talk at EI3-IC workshop on *Interoperability of Business Processes and Enterprise Models*, Gaithersburg, February 6-8, 2002.
 34. “Semantic Content Annotation and Applications: Semantic Web Now and Challenges Ahead,” *Invited Talk* at 2001 IRC International Conference on Internet Information Retrieval, Seoul, S. Korea, October 29, 2001.
 35. “On Supporting Complex Relationships and Knowledge Discovery in the Semantic Web,” Plenary *Invited talk* at the [2001 BISC International Workshop on Fuzzy Logic and the Internet: New Directions in Enhancing the Power of the Internet](#), Berkeley CA, August 16, 2001.
 36. “Information Scapes: A Paradigm for Knowledge Discovery in Semantic Web,” Inaugural Session *Invited Talk* at the [IJCAI-2001 Workshop on Knowledge Discovery from Distributed, Dynamic, Heterogeneous, Autonomous Data and Knowledge, Sources](#), Seattle, WA, August 6, 2001.
 37. “Realizing Semantic Information Brokering and Semantic Web” *Invited Talk* at Perspectives on Agents: Theories and Technologies Seminar Series, Trento, Italy, February-June 2000. University of Trento, April 27, 2000.
 38. [“Workflow and Process Automation in Information Systems: A Proposal for a Multidisciplinary Research agenda and Follow-up,”](#) *Invited Talk* at the NSF Invitational Workshop on Distributed Information, Computation, and Process Management for Scientific and Engineering Environments, Virginia, May 15-16, 1998.
 39. “From Process Modeling to Workflow Automation,” *invited talk*, National Institute of Standards and Technology sponsored Process Information Technology Workshop, March 13, 1998, Gaithersburg, MD.
 40. “Workflow Applications to Research Agenda: Scalable and Dynamic Work Coordination and Collaboration Systems,” *invited talk* (with K Kochut) at the NATO Workshop on Advances in Workflow Management Systems and Interoperability. Istanbul, Turkey, August 1997.
 41. “Overview of Workflow Research and Technology,” *invited talk* at the DARPA Collective Actions Tools workshop, March 1996.
 42. “From Data Dirt Roads to Infocsm”, *inaugural session invited talk*, 7th International Conference on Management of Data, Pune, India, December 1995.

Chief Guest/Speaker at Special Events

43. “An Overview of Workflow Management: From Process Modeling to Workflow Automation,” CERN-wide Computing Colloquium, CERN, Geneva, France, March 31, 1998.
35. “Workflow Management: Technology, Experiences and Research,” special university-industry seminar, Universidade Nove De Lisboa, Portugal, March 25, 1998.
36. “Information (Super) Highway: New Opportunities for Global Competitive Advantage for Developing Countries”, city-wide talk organized by Ahmedabad Management Association, India, August 26, 1996.
37. “Multidatabase Systems: Research and Reality,” invited guest speaker at the 1st Symposium of the Tsukuba Advanced Research Alliance (TARA), March 4, 1995.

38. "Information By-Ways, Lanes, and Superhighway," city-wide talk organized by the Ahmedabad Management Association, Ahmedabad, India, December 1994.
39. Special Guest and speaker at the UBILAB Workshop on Data Management Scenarios at Union Bank of Switzerland, Zurich, April 28, 1993.
40. Primary speaker for the Workshop on Federated Database Systems (for the members of CRAI consortium), CRAI, Rende, Italy, March 23–24, 1992. Presented and led discussions for 21 hours.

Publications

Books Authored or Co-Authored

1. [V. Kashyap and A. Sheth, Information Brokering Across Heterogeneous Digital Data](#), Kluwer Academic Publishers, August 2000, 248 pages.

Books Edited and Co-Edited

- 2.
3. J. Cardoso and A. Sheth, Eds., ["Semantic Web Process: powering next generation of processes with Semantics and Web services"](#), Lecture Notes in Computer Science, Vol. 3387, 2005, VIII 147p., ISBN: 3-540-24328-3.
4. A. Sheth and W. Klas, Eds., [Multimedia Data Management: Using Metadata to Integrated and Apply Digital Data](#), McGraw Hill, 1998, 385 pages.
5. A. Elmagarmid, M. Rusinkiewicz, and A. Sheth, Eds., [Heterogeneous Distributed Database Systems](#), Morgan Kaufmann Publishers, CA. 1998, 400 pages.
6. A. Dogac, L. Kalinechenko, T. Ozsu and A. Sheth, Eds. [Workflow Management Systems and Interoperability](#), NATO ASI Series F, Vol. 164, Springer Verlag, 1998, 524 pages.

Editorship of International Conference and Workshop Proceedings

5. K. Verma; A. Sheth; M. Zaremba; C. Bussler, [Proceedings of the International Workshop in Dynamic Web Processes \(DWP 2005\)](#), available as IBM report RC23822, Amsterdam, the Netherlands, December 12, 2005, pp. 96.
6. Y. Kalfoglou, M. Schorlemmer, M. Uschold, A. Sheth, S. Staab, [Proceedings of the Dagstuhl Seminar 04391 on Semantic Interoperability and Integration](#), Internationales Begegnungs- und Forschungszentrum (IBFI), Schloss Dagstuhl, Germany, January 1, 2005.
7. [Proceedings of the First International Conference on Semantic Web Services and Web Process Composition](#), San Diego, CA, July 6, 2004, 121 pages.
8. A. Sheth, and K. Jeffery, 2004 IEEE International Conferences on Services Computing, Shanghai, China, September 15-18, 2004, 653 pages.
9. A. Sheth and R. Meersman, Eds., Proceedings of the NSF-EU Workshop on Database and Information Systems Research for Semantic Web and Enterprises, April 3-5, 2002, 111 pages.
10. S. Staab, S. Decker, D. Fensel and A. Sheth, Eds., Proceedings of the Second International Workshop on the Semantic Web – SemWeb'2001, Hongkong, May 1, 2001, 93 pages.
11. J. Hoppenbrouwers, T. Lima, M. Papazoglou, A. Sheth, Proceedings of the IEEE Advances in

- Digital Libraries 2000 ADL2000), IEEE Computer Society Press, May 22-24, 2000 241 pages.
12. A. Sheth, Ed., Proceedings for the NSF Workshop on Workflow and Process Automation in Information Systems, Athens, GA, May 1996, 164 pages.
 13. H. Korth and A. Sheth, Eds., Proceedings of the 3rd Intl. Conference on Parallel and Distributed Information Systems, IEEE Computer Society Press, September 1994, 272 pages.
 14. H-J. Schek, A. Sheth, and B. Czjedo, Eds., Proceedings of the 1st RIDE Intl. Workshop on interoperability in Multidatabase Systems, H. Vienna, IEEE Comp. Sc. Press, April 1993, 279 pages.
 15. Y. Kambayashi, M. Rusinkiewicz, and A. Sheth, Eds., Proceeding of the 1st Intl. Workshop on Interoperability in Multidatabase Systems Kyoto, Japan, IEEE Computer Society Press, April 1991, 370 pages.
 16. A. Sheth, Ed., Proceedings of the Workshop on Management of Interdependent Data in Bellcore and BCCS, Bellcore, September 1990.

Editorship of Special Issues of Journals and Technical Society Magazines

17. N. Ashish, C. Goble and A. Sheth, Eds. Guest Editors for the Special Section on "The Semantic Web and Science Data Interoperation," Journal of Digital Library, 2004.
18. R. Meersman and A. Sheth, Eds., Semantic Web, Database Management and Information Systems, Special Issue of SIGMOD Record, 32 (4), December 2002, pp. 10-70.
19. A. Ouksel, and A. Sheth, Semantic Interoperability in Global Information Systems, Special issue of ACM SIGMOD Record, 29 (1), March 1999.
20. H. Korth and A. Sheth, Eds., Special Issue on Selected Systems papers based on the 3rd Intl. Conf. on Parallel and Distributed Information Systems, Very Large Data Bases, 5 (1), January 1996, pp. 1-63.
21. W. Klas and A. Sheth, Eds., Metadata for Digital Media, Special issue of SIGMOD Record, 24 (4), December 1994, pp. 19-71.
22. A. Sheth, Ed., Semantic Issues in Multidatabase Systems, Special issue of SIGMOD Record, 20 (4), December 1991, pp. 5-80.

Chapters in Books

23. S. S. Sahoo and A. Sheth, Bioinformatics applications of Web Services, in Web Processes and role of Semantics - Semantic Web Processes and Their Applications. J. Cardoso, A. Sheth, Editors. Springer, 2006
24. 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.
25. B. Aleman-Meza, A. Sheth, D. Palaniswami, M. Eavenson, I. B. Arpinar, Semantic Analytics in Intelligence: Applying Semantic Association Discovery to determine Relevance of Heterogeneous Documents, In Advanced Topics in Database Research - Volume 5, Keng L. Siau (Ed.), Idea Publishers (in print), 2006.
26. N. Oldham, C Thomas, A Sheth, K. Verma, "[METEOR-S Web Service Annotation](#)"

- [Framework with Machine Learning Classification](#),” in Semantic Web Services and Web Process Composition, Lecture Notes in Computer Science, Vol. 3387, Springer Verlag, January 2005, pp. 137 – 146.
27. P. Rajasekaran, J. Miller, K. Verma1 and A. Sheth ["Enhancing Web Services Description and Discovery to Facilitate Composition."](#) *Semantic Web Services and Web Process Composition: First International Workshop*, Revised Selected Papers, Lecture Notes in Computer Science, Vol. 3387, Springer Verlag, January 2005, pp. 55-68.
 28. J. Cardoso and A. Sheth, "Introduction to Semantic Web Services and Web Process Composition," in Semantic Web Services and Web Process Composition, Lecture Notes in Computer Science, Vol. 3387, Springer Verlag, January 2005, pp. 1-13.
 29. I. B. Arpinar, A. Sheth, C. Ramakrishnan, E. L. Utery, M. Azami and M. Kwan, Geospatial Ontology Development and Semantic Analytics, Handbook of Geographic Information Science, J. P. Wilson and A. S. Fotheringham, Eds, Blackwell Publishing (in print, 2005, 21 pages).
 30. M. Fisher and A. Sheth, "Semantic Enterprise Content Management,” in Practical Handbook of Internet Computing, Munindar P. Singh, Ed., Chapman Hall & CRC Press, Baton Rouge, 2004, pp. 9-1:9-21.
 31. J. Arnold, H.-B. Schuttler, D. Logan, D. Battogtokh, J. Griffith, B. Arpinar, S. Bhandarkar, S. Datta, K. J. Kochut, E. Kraemer, J. A. Miller, A. Sheth, G. Strobel, T. Taha, B. Aleman-Meza, J. Doss, L. Harris, & A. Nyong. [Metabolomics](#), Chapter 22 in Handbook of Industrial Mycology. Marcel Dekker, NY, NY, 2004, pp 597-633.
 32. A. Sheth, I. Budak Arpinar, and V. Kashyap, “Relationships at the Heart of Semantic Web: Modeling, Discovering, and Exploiting Complex Semantic Relationships,” [Enhancing the Power of the Internet Studies in Fuzziness and Soft Computing](#), M. Nikraves, B. Azvin, R. Yager and L. Zadeh, Springer-Verlag, 2003, , pp. 63-94.
 33. R. David Hall, John A. Miller, Jonathan Arnold, Krys J. Kochut, Amit P. Sheth and Michael J. Weise, ["Using Workflow to Build an Information Management System for a Geographically Distributed Genome Sequence Initiative."](#) *Genomics of Plants and Fungi*, R.A. Prade and H.J. Bohnert, Eds, Marcel Dekker, Inc., New York, NY, 2003, pp. 359-372.
 34. B. Hammond, A. Sheth, and K. Kochut, Semantic Enhancement Engine: A Modular Document Enhancement Platform for Semantic Applications over Heterogeneous Content, in Real World Semantic Web Applications, V. Kashyap and L. Shklar, Eds., IOS Press, December 2002, pp. 29-49.
 35. J. Cardoso, A. Sheth and J. Miller, Workflow Quality of Service, Enterprise Inter- and Intra-Organisational Integration - Building International Consensus, Kluwer Academic Publishers, 2002, pp. 303-312.
 36. S. Thacker, A. Sheth and S. Patel, “Complex Relationships for the Semantic Web,” Creating the Semantic Web,” *Spinning the Semantic Web*, D. Fensel, J. Hendler, H. Liebermann, and W. Wahlster (eds.), MIT Press, 2003, pp. 297-316.
 37. A. Sheth, K. Kochut, “Workflow Applications to Research Agenda: Scalable and Dynamic Work Coordination and Collaboration Systems, in Workflow Management and Interoperability, A. Dogac et al Eds., Springer Verlag, 1999, pp. 35-59.
 38. J. Miller, A. Sheth and K. Kochut, "Perspectives in Modeling: Simulation, Database and Workflow," *Conceptual Modeling: Current Issues and Future Directions*, Selected Papers from the Workshop on Conceptual Modeling, Lecture Notes in Computer Science (LNCS), Vol. 1565, P. Chen, J. Akoka, H. Kangassalo, B. Thalheim, Editors, (April 1999) pp. 154-

167. Springer Verlag, Berlin-Heidelberg.
39. A. Sheth, "Changing Focus on Interoperability in Information Systems: From System, Syntax, Structure to Semantics", in *Interoperating Geographic Information Systems*. M. F. Goodchild, M. J. Egenhofer, R. Fegeas, and C. A. Kottman (eds.), Kluwer, Academic Publishers, 1999, pp. 5-30.
 40. V. Kashyap and A. Sheth, "Semantic Similarities between Objects in Multiple Databases," in *Heterogeneous Distributed Database Systems*, A. Elmagarmid et al (eds), Morgan Kaufmann Publishers, CA. 1998, pp. 57-89.
 41. G. Karabatis, M. Rusinkiewicz, and A. Sheth, "Interdependent Database Systems", in *Heterogeneous Distributed Database Systems*, A. Elmagarmid et al (eds), Morgan Kaufmann Publishers, CA. 1998, pp. 217-252.
 42. V. Kashyap and A. Sheth, "Semantic Heterogeneity in Global Information Systems: The Role of Metadata, Context and Ontologies", in *Cooperative Information Systems: Current Trends and Directions*, M. Papazoglou and G. Schlageter (eds.), Academic Press, 1998, pp. 139-178.
 43. S. Boll, W. Klas, and A. Sheth, "Overview on Using Metadata to Manage Multimedia Data", in *Multimedia Data Management: Using Metadata to Integrated and Apply Digital Data*, A. Sheth and W. Klas (Eds.), McGraw Hill, 1998, pp. 1-23.
 44. E. Mena, V. Kashyap, A. Illarramendi and A. Sheth, [*"Domain Specific Ontologies for Semantic Information Brokering on the Global Information Infrastructure"*](#), International Conference on Formal Ontologies in Information Systems (FOIS'98), Trento (Italy), June 1998, pp. 269-283.
 45. A. Sheth, "Managing with Less than Absolute Integrity", *Integrity and Internal control in Information Systems*, Vol. 1, S. Jajodia, W. List, G. McGregor, L. Strous [Eds], Chapman & Hall, December 1997, pp. 195-202.
 46. D. Worah and A. Sheth, "Transactions in Transactional Workflows," *Advanced Transaction models and Architectures*, S. Jajodia and L. Kerschberg [Eds.], Kluwer Academic Publishers, 1997, pp. 3-34.
 47. A. Sheth and K. Kochut, "Workflow Applications to Research Agenda: Scalable and Dynamic Work Coordination and Collaboration Systems," *Workflow Management Systems and Interoperability*, A. Dogac et al [Eds], Springer Verlag, 1998, pp. 35-60. [Earlier version appears in the Proceedings of NATO Advanced Study Institute Proceedings, pp. 34-59, August 1997.]
 48. A. Sheth, "Data Semantics: What, Where, and How?", in *Data Semantics (IFIP Transactions)*, R. Meersman and L. Mark, Eds., Chapman and Hall, London, 1996, pp. 601-610.
 49. V. Kashyap, K. Shah, and A. Sheth, "Metadata for building the MultiMedia Patch Quilt," in *Multimedia Database Systems: Issues and Research Directions*, S. Jajodia and V.S.Subrahmaniun, Eds., Springer-Verlag, 1995, pp. 297-323.
 50. A. Sheth, C. Wood, and V. Kashyap, "Q-Data: Using Deductive Database Technology to Improve Data Quality," in *Applications of Deductive Databases*, R. Ramakrishnan, Ed., Kluwer Academic Press, 1994, pp. 23-56.
 51. M. Rusinkiewicz and A. Sheth, "Specification and Execution of Transactional Workflows," in *the Modern Database Systems: The Object Model, Interoperability, and Beyond*, W. Kim, Ed., Addison-Wesley, 1994, pp.592-620.
 52. G. Karabatis, M. Rusinkiewicz, and A. Sheth, "Issues in Managing Interdependent Data:

- Correctness and Enforcement of Specification,” in Advanced Database Systems: Lecture Notes in Computer Science #759, N. Adam, B. Bhargava, Eds, Springer-Verlag, 1993.
53. A. Sheth, M. Rusinkiewicz, and G. Karabatis, “Using Polytransactions to Manage Interdependent Data,” in Database Transaction Models for Advanced Applications A. Elmagamid, Ed., Morgan Kaufmann, Publishers, 1992.

Papers in Refereed Journals

54. S S. Sahoo, C. Thomas, A. Sheth, C. Henson, W. S. York, GLYDE - An expressive XML standard for the representation of glycan structure. Carbohydrate Research, 340 (18), Dec 30, 2005: pp. 2802-2807. Epub 2005 Oct 20. PMID: 16242678.
55. C. Ramakrishnan, W. H. Milnor, M. Perry and A. Sheth, Discovering Informative Connection Subgraphs in Multi-Relational Graphs, SIGKDD Exploration (Special Issue on Link Mining), 7 (2), December 2005.
56. V. Kashyap, C. Ramakrishnan, C. Thomas, and A. Sheth, TaxaMiner: an experimentation framework for automated taxonomy bootstrapping, *Int. J. Web and Grid Services*, Vol. 1, No. 2, 2005, pp. 240-266.
57. M. Burstein, C. Bussler, T. Finin, M. Huhns, M. Paolucci, A. Sheth, and S. Williams, A Semantic Web Services Architecture, IEEE Internet Computing, September-October 2005, pp. 52-61.
58. S. Oundhakar, K. Verma. K. Sivashanugam, A. Sheth and J. Miller, Discovery of Web Services in a Multi-Ontology and Federated Registry Environment, International Journal of Web Services Research, 2 (3), July-September, 2005, pp.1-32.
59. B. Aleman-Meza, C. Halaschek-Wiener, I. Budak Arpinar, C. Ramakrishnan, and A. Sheth, Ranking Complex Relationships on the Semantic Web, IEEE Internet Computing, 9 (3), May/June, 2005, pp. 37-44.
60. K. Verma, K. Sivashanmugam, A. Sheth, A. Patil, S. Oundhakar and J. Miller, METEOR-S WSDI: A Scalable Infrastructure of Registries for Semantic Publication and Discovery of Web Services, Journal of Information Technology and Management, Special Issue on Universal Enterprise Integration, 6 (1), January 2005, pp. 17-39. [OpenURL](#)
61. K. Sivashanmugam, J. A. Miller, A. Sheth and K. Verma, Framework for Semantic Web Process Composition", International Journal of Electronic Commerce (IJEC), Special Issue on Semantic Web Services and Their Role in Enterprise Application Integration and E-Commerce, Winter 04/05 issue, 9 (2), pp. 71-106.
62. A. Sheth, C. Ramakrishnan, and C. Thomas, “Semantics for the Semantic Web: the Implicit, the Formal and the Powerful,” International Journal on Semantic Web and Information Systems, 1 (1), 2005, pp. 1-18.
63. A. Sheth, B. Aleman-Meza, I. B. Arpinar, C. Ramakrishnan, C. Halaschek, C. Bertram, Y. Warke, C David Avant, F. S. Arpinar, K. Anyanwu, K. Kochut, Semantic Association Identification and Knowledge Discovery for National Security Applications, Journal of Database Management, 16 (1), Jan-March 2005.
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152. S.S. Sahoo, A. Sheth, W. York, J. Miller, "Semantic Web Services for N-glycosylation Process," International Symposium on Web Services, Blacksburg, VA, May 25-27, 2005.
153. A. Sheth, K. Verma, J. Miller and P. Rajasekaran (University of Georgia) [Enhancing Web Service Descriptions using WSDL-S](#), [Research-Industry Technology Exchange](#) at [EclipseCon 2005](#), Burlingame, CA, Feb. 28-March 3, 2005.
154. A. Sheth, et. al. "[Semantic Web Technology in Support of Bioinformatics for Glycan Expression](#)," W3C Workshop on Semantic Web for Life Sciences, October 28, 2004, Cambridge MA. On line publication.
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160. M. Arumugam, A. Sheth, and I. B. Arpinar, Towards P2P Semantic Web: A Distributed Environment for Sharing Semantic Knowledge on the Web, WWW2002 Workshop on Real World RDF and Semantic Web Applications, Honolulu, Hawaii, May 7, 2002.
161. T. Lima, A. Sheth, N. Ashish, M. Guntamadugu, S. Laxminarayanan, N. Palsena, D. Singh, "Digital Library Services Supporting Information Integration over the Web," Proc. Intl Workshop on Information Integration on the Web Technologies and Applications, Rio de Janeiro. 2001. pp.19-26.

162. Y. Han, A. Sheth, K. Bussler, "A Taxonomy of Adaptive Workflow Management," CSCW-98 Workshop Towards Adaptive Workflow Systems, November 14, 1998 [proceedings on the Web at <http://ccs.mit.edu/klein/CSCW98/#anchor1609273>].
163. Z. Luo, A. Sheth, J. Miller, K. Kochut, "Defeasible Workflow, its Computation and Exception Handling," CSCW-98 Workshop Towards Adaptive Workflow Systems, November 14, 1998, [proceedings on the Web at <http://ccs.mit.edu/klein/CSCW98/#anchor1609273>].
164. D. Worah and A. Sheth. "What do Advanced Transaction Models Have to Offer for Workflows?" Proceedings of the Intl. Workshop on Advanced Transaction Models and Architectures (ATMA), Goa, India, August 1996, pp. 1-17.
165. A. Sheth and V. Kashyap, "Steps towards media-independent search of Web-accessible Heterogeneous Digital Data," Proceedings of the 2nd International Workshop on Multimedia Information Systems, West Point, New York, Sept. 26-28, 1996, pp.92-97.
166. E. Mena, V. Kashyap, A. Illarramendi and A. Sheth, "Managing Multiple Information Sources through Ontologies: Relationship between Vocabulary Heterogeneity and Loss of Information," Proceedings of the Workshop on Knowledge Representation meets Databases in conjunction with European Conference on Artificial Intelligence, Budapest, Hungary, August 1996, pp. 1-3.
167. A. Sheth, V. Kashyap and William LeBlanc, "Attribute-based Access of Heterogeneous Digital Data", Proceedings of the Workshop on Providing Web Access to Legacy Data, 4th Intl. World Wide Web Conference, December 1995.
168. A. Savasere, A. Sheth, S. Gala, S. Navathe and H. Marcus, "On Applying Classification to Schema Integration," Proceedings of the 1st Intl. Workshop on Interoperability in Multidatabase Systems, Kyoto, Japan, 1991, pp. 258-261.
169. L. Ness, J. Cameron, A. Sheth, "An Executor for Flexible Transactions which Achieves Maximal Parallelism," Proceedings of the 1st Intl. Workshop on Interoperability in Multidatabase Systems, Kyoto, Japan, 1991, pp. 288-291.
170. A. Sheth and M. Rusinkiewicz, "Management of Interdependent Data: Specifying Dependency and Consistency Requirements," Proceedings of the Workshop on the Management of Replicated Data, Houston TX, November 1990.
171. A. Sheth and S. Gala, "Attribute Relationships: An Impediment in Automating Schema Integration," Proceedings of the Workshop on Heterogeneous Database System, December 1989.
172. A. Sheth, "Developing an Interface Unit for Expanding MCS 6800," Proceedings of the 3rd Indian Congress of College Going Scientists, Kanpur, India, December 1979.
173. A. Sheth, "Solar Energy - Perspective and Applications," Proceedings of the AU India Symposium on Energy Management Pilani, India, April 1979.

Other Publications: Conference Proceedings (refereed or invited short papers/abstracts)

174. B. Aleman-Meza, C. Halaschek-Wiener, S. S. Sahoo, A. Sheth, I. B. Arpinar, Template Based Semantic Similarity for Security Applications, Springer LCNS v3495, Apr 2005, pp 621 – 622 [OpenURL](#)
175. A. Sheth, K. Verma, J. Miller and P. Rajasekaran, [Enhancing Web Service Descriptions using WSDL-S](#), A Research-Industry Technology Exchange at [EclipseCon 2005](#), Burlingame, CA, February 28-March 3, 2005.
176. Y. Kalfoglou, M. Schorlemmer, M. Uschold, A. Sheth, S. Staab, [Semantic Interoperability](#)

- [and Integration: Executive Summary](#), in Semantic Interoperability and Integration, Dagstuhl Seminar Proceedings 04391, Internationales Begegnungs- und Forschungszentrum (IBFI), Schloss Dagstuhl, Germany, January 1, 2005.
177. W. York, A. Sheth, K. Kochut, J. Miller, C. Thomas, K. Gomadam, X. Yi, and M. Nagarajan, "Semantic Integration of Glycomics Data and Information," in Human Disease Glycomics/Proteome Initiative 1st Workshop: Functional Genomics in Disease, August 23-24, 2004, Osaka, Japan, pp. 38-39.
 178. C. Halaschek, B. Aleman-Meza, I.B. Arpinar, A. Sheth, "Discovering and Ranking Semantic Associations over a Large RDF Metabase," [VLDB 2004](#): August 31 - September 3, 2004 pp. 1317-1320.
 179. A. Sheth, "Semantic Content Annotation and Applications: Semantic web now and Challenges Ahead," Proceedings of 2001 IRC International Conference on Internet Information Retrieval, Seoul, S. Korea, October 29, 2001, pp. 99-102. (vision paper)
 180. K. Anyanwu, A. Sheth, "[Supporting Knowledge Discovery on the Semantic Web by Exploiting the Semantics of Complex Relationships](#)," Proceedings of the International Semantic Web Working Symposium (SWWS), 2001.
<http://www.semanticweb.org/SWWS/program/position/>
 181. Z. Luo, A. Sheth, "Supporting Cross-organizational Business Processes: Challenges and Solutions," Workshop on [Beyond Workflow Management: Dynamic Organizational Process Workshop](#), CSCW 2000, Philadelphia PA, Dec. 2000. (position/vision paper)
 182. Z. Luo, A. Sheth, K. Kochut, "Checkpointing for Workflow Recovery," [ACM Southeast Conference 2000](#), Clemson, SC, April 2000, pp. 79-80. (Short paper)
 183. A. Sheth, "The InfoQuilt System for Intelligent Analysis, Mining, Fusion, and Dissemination of Heterogeneous Media Data", Symposium on Advanced Information Processing and Analysis, March 1997, Tysons Corner, VA, pp. 46. (invited talk abstract)
 184. S. Thatte, A. Sheth, and K. Shah, "Intelligence Information Management and the InfoHarness System", Symposium on Advanced Information Processing and Analysis, March 1997, Tysons Corner, VA, pp.78. (invited talk abstract)
 185. A. Sheth, "Bellcore's ADAPT/X Harness System for Managing Information on Internet and Intranets," Proceedings of the 22nd Intl. Conference on Very Large Data Bases, Bombay, India, September 1996, p. 585. (invited talk abstract)
 186. L. Shklar, A. Sheth, V. Kashyap, and S. Thatte, "InfoHarness: A System for Search and Retrieval of Heterogeneous Data," Proceedings of the 1995 ACM SIGMOD Intl. Conference on Management of Data, San Jose, CA., May 24, 1995, p 478. (demonstration abstract)
 187. N. Krishnakumar and A. Sheth, "Specification of Workflows with Heterogeneous Tasks in METEOR," 20th Intl. Conf. on Very Large Databases, Santiago, Chile, September 1994. (refereed short paper)
 188. W. Jin, L. Ness, M. Rusinkiewicz, and A. Sheth, "Concurrency Control and Recovery of Multidatabase Work Flows in Telecommunication Applications," Proceedings of the ACM SIGMOD Conference on Management of Data, May 1993. (refereed short paper)
 189. D. Woelk, P. Attie, G. Meredith, A. Sheth, M. Singh, and C. Tomlinson, "Task Scheduling using Intertask Dependencies in Carnot," Proceedings of the ACM SIGMOD Conference on Management of Data, May 1993. (refereed short paper)
 190. A. Sheth, "Does Loose AI-DBMS Coupling Stand a Chance?," Proceedings of the 5th Intl. Conference on Data Engineering, Los Angeles, CA, February 1988. (position paper)
 191. A. Sheth, "Managing and Integrating Unstructured and Unstructured Data: Problems of Representation, Features, and Abstraction," Proceedings of the 4th Intl. Conference On Data Engineering, Los Angeles, CA, February 1988. (position paper)

192. A. Sheth, "When will we have true heterogeneous databases?" position statement in the Proceedings of the 3rd Intl. Conference on Data Engineering, Los Angeles, CA, February 1987.

Other Publications: Articles in informal proceedings or non-referred papers

193. R. Akkiraju, J. Farrell, J. Miller, M. Nagarajan, M. Schmidt, A. Sheth, K. Verma, "[Web Service Semantics -- WSDL-S](#)," A joint UGA-IBM Technical Note, version 1.0, April 18, 2005. Also [W3C acknowledged member submission](#), Nov. 7, 2005.
194. A. Sheth, W. York, C. Thomas, M. Nagarajan, J. Miller, K. Kochut, S. Sahoo, X. Yi, "[Semantic Web technology in support of Bioinformatics for Glycan Expression](#)," W3C Workshop on Semantic Web for Life Sciences, 27-28 October 2004, Cambridge, Massachusetts USA.
195. Y. Kalfoglou, M. Schorlemmer, M. Uschold, A. Sheth, and S. Staab, Semantic Interoperability and Integration: Executive Summary, " Proceedings of the Dagstuhl Seminar 04391, Dagstuhl, Germany, September 19-24, 2004.
196. A. Sheth, et al. Semantic Web Research Center Report: LSDIS Lab, Research in Semantic Bioinformatics, Semantic Analytics and Semantic Web Processes, SIGSEMIS Bulletin Vol 1, Issue 3, November 2004.
197. A. Sheth, From Semantic Search & Integration to Analytics, Collection of Papers and Presentations at KMWorld 2004, Santa Clara, CA, October 26-28, 2003, pp. 307-317.
198. F. Fonsenka, and A. Sheth, [The Geospatial Semantic Web](#), UCGIS White Paper, 2002.
199. A. Sheth and SWIS workgroup, "Semantic Web Information Systems: NSF IDM workgroup report on challenges and opportunities in Semantic Web," June 2002.
200. A. Sheth, J. Miller, K. Kochut, and B. Arpinar, Research in Multi-Organizational Processes and Semantic Information Brokering at the LSDIS Lab, ACM SIGMOD Record, 30 (4), December 2001, pp. 123-128.
201. A. Sheth, D. Worah, K. Kochut, J. Miller, K. Zheng, D. Palaniswami, S. Das, "The METEOR Workflow Management System and its use in Prototyping Healthcare Applications", Proceedings of the Towards An Electronic Patient Record (TEPR'97) Conference, April 1997, Nashville, TN.
202. A. Sheth, "Eliminating Paper Work in the Healthcare System," *SiliconIndia*, August 15, 1997, pp. 28-31.
203. A. Sheth, M. Ansari, L. Ness, and M. Rusinkiewicz, "Using Flexible Transactions to Support Multi-database Applications," the U S West-NSF-DARPA workshop on Heterogeneous Databases and Semantic Interoperability, Boulder, CO, February 1992.
204. A. Sheth, "Issues in Database Design and Integration: A Researchers in Search of Pragmatic Solutions," position statement distributed at 17th VLDB, September 1991. A related position statement "Issues in Schema Integration: Perspective of an Industrial Researchers," presented and distributed at the ARO-Workshop on Semantics of Heterogeneous Databases, Philadelphia, September 1991.
205. A. Sheth, "Fault Tolerances in Systems for Very Large Databases." the Minnowbrook Workshop on Database Machines, July 1987.
206. R. Ramnarayan and A. Sheth, "A D/KBMS Architecture Evaluation Testbed," the Minnowbrook Workshop on Database Machines, July 1987.

Bulletins or Reports: Over 40 written, some proprietary. Example: V. Kashyap and A. Sheth, "Building Successful Human-Center Systems," Media/Book Review, IEEE Multimedia, 8 (2),

102-103, 2001.

Edited Reports: Edited over 30 Database Research Center Reports for *ACM SIGMOD Record* as Associate Editor since 1988. Edited several reports on workflow and process management for [SIGGROUP Bulletin](#).

Creative contributions other than formal publications (since 1994)

Interviews and Profiles

- Interviews and biographical profiles
 - Commercialization Profile for Semagix in “A Mission Possible: Transforming UGA Research Discoveries Into New Technology Companies,” published by University of Georgia, January 2006, p.7.
 - “[The Information Systems Perspective on Semantic Web Research](#),” An Interview with Professor Amit Sheth for the Bulletin of AIS Special Interest Group on Semantic Web and Information Systems, Volume 1, Issue 1, April 2004. ([Copy](#))
 - “[When Academicians become Entrepreneurs: The first in a series profiling Dr. Amit Sheth](#)”, Sandpaper, May 2003. ([Copy](#))
 - Interview by [John Townley](#): “[The Streaming Search Engine That Reads Your Mind](#),” [Streaming Media World](#), August 10, 2000.
 - “Interview: Amit Sheth on workflow technology”, by Sushil Jajodia, IEEE Concurrency, April-June 1998, pp. 21-23. ([Copy](#))
 - Technology Interviews: (a) discussing Semantic Web State of the Art in “[Apps Make Semantic Web a Reality](#),” in [SD Time April 1, 2005](#); (b) future in Internet related technologies and relevant research at UGA following broad-based talks, published in the *Economic Times*, January 1995 (several editions), and the *Times of India* (several editions), January 1996 (national news papers in India with largest circulation in Business and General categories, respectively).
 - Interview discussing applications of the METEOR system in Healthcare in Research Reporter, UGA, Winter 1997, and in Healthcare Informatics (http://www.healthcare-informatics.com/issues/2001/02_01/cover.htm#workflow).
 - Biographical profiles published in a Gujarati book (1996) and an English (1997) book.

Technology Licensing, Commercialization and Deployed Systems

- Recent software systems developed under supervision as PI of projects (with co-PIs where applicable) that are commercialized, used for R&D by other institutions, or used for operational/regular work:
 - **SCORE**, a technology for automatic metadata extraction and semantic applications, and for A/V search based on an Industry funded research project **VideoAnywhere** at the LSDIS lab. It has been [licensed to Semagix](#), Inc., (formerly Taalee and Voquette, Inc.) by the University of Georgia research foundation to the first Venture Capital funded Internet-startup in the Athens, GA area. Commercial product from Semagix based on SCORE is named Freedom.
 - **AdaptX Harness**, a [commercial product](#) from Bellcore (Telcordia Technologies)

introduced in 1995 and supported through 2000 (lead project at Bellcore, subsequent technology transfer in joint project with UGA– see funded projects below).

- **METEOR** system (several components) was deployed at Boeing, Microelectronics and Computer Technology Corp., Connecticut Healthcare Research & Education Foundation and its Information Technology subsidiary CHIME, South Carolina Research Authority, National Institute of Standards and Technology's Manufacturing Program, etc. It has also been distributed to many higher education institutions for teaching and research and to industrial labs for non-commercial use. It was licensed to Infocsm, Inc., a startup company that has made METEOR available as a commercial product.
- **CAPA** system was completed and deployed for use throughout the UGA campus by any faculty and staff involved in proposing new courses or changes to the courses, and processing/approval of the proposals. In its first quarter of use, approx. 6000 courses were processed. LSDIS lab developed it and maintained the system for the first year, and is now transferred to the VPAA's office. CAPA system has been operational since 1997.
- **GradWeb** system overhauls the Graduate Schools information systems to provide a completely Web based environment for use by Staff and Administrators within the Graduate School and all interacting departments, as well as by graduate applicants and students. Application material is available electronically and applications be submitted electronically.
- **CareWeb**, a Web resource developed in collaboration with Medical College of Georgia under State of Georgia's Family and Children Services department to support health information and education needs of under-served populations.

Research Funding / Grants and contracts received as the PI (since 1994¹)

Federal Funds (with additional matching funds in some cases)

- ***SemGrid: Semantic Discovery on Adaptive Services Grid***, Principal Investigator (UGA Co-PIs: Arpinar, Kochut, Miller), National Science Foundation (IIS 0545243), October 15, 2005 – December 31, 2007, **\$100,000**.
- ***An Ontological Approach to Financial Analysis & Monitoring***, Principal Investigator, ARDA funded project (subcontract to CTA, Inc.), **\$325,000**, April 2005-September 2006.
- ***Ontology, Metadata and Semantic Association Support for Semantic Agent Based Document Protection***, Principal Investigator, ARDA funded project (subcontract to CTA, Inc.), **\$38,716**, November 2004-February 2005.
- ***SemDis: Discovering Complex Relationships in Semantic Web***, Principal Investigator (of joint UGA-UMBC project; UGA Co-PIs: Arpinar, Kochut, Miller; UMBC Co-PIs: Joshi, Finin, Yesha), National Science Foundation (IIS-0325464 – ITR Medium Projects), October 1, 2003 – September 30, 2007, **\$800,000** - UGA component (Project Manager of \$1,250,000 overall project with UMBC component).
- ***Bioinformatics of Glycan Expression***, Investigator (Computer Science Coordinator; other CS investigators: K. Kochut, J. Miller), National Institute of Health, July 1, 2003 – June 30, 2008, **\$709,401** (Computer Science Component).

¹ PI of research grants/contracts of over four million dollars from DARPA and other sources prior to joining UGA. Also raised significant funds for commercial activities from Venture Capital and other sources for non-academic activities.

- ***System-Level Techniques for Energy Aware Computing.*** (Focus area: Enabling Personal Networked and Home Computing Applications with Metadata, PI: D. Lowenthal, Co-PIs: Bhandarkar, Sheth, Li, Waterson), \$27,150, July 1, 2003 – June 30, 2004.
- ***Semantic Association Identification and Knowledge Discovery for National Security Applications,*** Principal Investigator, National Science Foundation, CISE-ITR- 0219649 (Co-PIs: I.B. Arpinar, K. Kochut), July 1, 2002-June 30, 2005, **\$200,000.** REU Supplement for 2004, \$12,000.
- ***Database and Information Systems Research for Semantic Web and Enterprises,*** National Science Foundation (CISE-IIS-0211606), April 1, 2002 – March 31, 2003, \$15,000. EU Thematic Network OntoWeb, \$5,000. University of Georgia Foundation and CS Department, \$6,250.
- ***Extending METEOR with workflow reuse, adaptation, and collaboration,*** Principal Investigator, awarded by Naval Research Laboratory and ITT, January 1, 2000—September 30, 2000, **\$200,000.**
- ***The Alexandria Digital Earth Modeling System*** [Semantic Interoperability and Collaboration], Principal Investigator of the UGA subcontract to UCSB, National Science Foundation – IIS-9817432 (Co-PI: K. Kochut), **\$600,000** in Federal, plus \$25,000 in UGARF equipment matching, September 1999—August 2004.
- ***Workflow Management for Advanced DoD Applications,*** Principal Investigator, awarded by Naval Research Lab/Department of Navy - N00173-98-2-L005 (Co-PI: K. Kochut, J. Miller), July 1, 1998 – December 31, 1999. **\$315,542** in Federal, plus **\$15,000** in UGARF equipment matching funds.
- ***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-PI: K. Kochut, J. Miller). Total project: **\$1,674,729+.** \$725,000 in Federal 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); additional more than \$949,727 as matching funds (from University of Georgia and University of Georgia Research Foundation, Industry Donations --includes some of the funds listed under Industry Donations below).
- ***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-PIs for first year: K. Kochut, J. Miller, Co-PIs 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.** June 1996 – May 1999.
- ***InfoHarness: A Scaleable 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 # 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.** April 15, 1995–August 30, 1997.
- ***NSF Workshop on Workflow and Process Automation,*** Principal Investigator, awarded by the National Science Foundation (Award # IRI-9528870, Division of Information, Robotics, and Intelligent Systems, and the Division of Computer and Computational Research), **\$24,795,** plus **\$6000** donation by the University of Georgia Research

Foundation, September 1995-September 1996.

- **NATO Award for Advanced Study Institute on Workflow Systems and Interoperability**, Co-Director (jointly with A. Dogac, L. Kalinichenko, T. Ozsu), 2,400,000 BFr (US\$76,000), Istanbul, Turkey, December 1996 – August 1997.

Industry/Consortia Funds

- **Homeland Security Workshop**, Principle Investigator (with co-PIs: E. Lynn Usery, I. Budak Arpinar, Xiaobai Yao), UCGIS, \$15,000, August 2003 – July 2004.
- **Video Data Management System**, Principal Investigator, awarded by L G Electronics Research Center of America, \$50,004, January 1, 1998 – December 31, 1998. University of Georgia Research Foundation Matching in first year \$2,500.

State and UGA Funds

- **Faculty Research Commercialization Program**, Principal Investigator, awarded by the Advanced Technology Development Center in conjunction with Georgia Research Alliance, \$50,000, July 1, 1998 – June 30, 1998.
- **UGA Office of Instructional Development (OID)**, A. Sheth, D. Everett, J. Miller, K. Kochut, J. Smith, R. Robinson and H. Arabnia, "Mobile Multimedia Instruction Environment", \$8,500, April 1, 1996 – March 30, 1997.
- **Course Approval Process Automation (CAPA)**, Principal Investigator, funded by the Vice President for Academic Affairs, University of Georgia, \$150,065 (budget) July 1, 1996 – June 30, 1997.
- **CareWeb** for the Family Connection Program, Principal Investigator, cooperative agreement funded by Medical College of Georgia, \$30,000, May 1997 – April 1998.
- **GradWeb** for the reengineering of the entire information system of the UGA's Graduate School with Web based graduate applications and processing of graduate student related information within the Grad School and with all departments, LSDIS lab award of approx. \$32,430, July 1997 – July 1998..

Competitive Awards and Industry Cash Gifts Received

- **Gift/donation**, Athens Heart Center, \$32,000, May 2005.
- **Competitive Award, IBM Eclipse Innovation Grant 2005**, \$27,000, January 2005.
- **Cash Gift/donation, 2004 IBM Faculty Award**, \$30,000, 2004.
- **Competitive Award, [IBM Eclipse Innovation Grant 2004](#)**, \$28,000, January 2004. (78/285)
- **Gift** from the Boeing Company as a LSDIS industry sponsor, \$55,000 (annual gifts), December 1996, January 1998, January 2001.
- **Gift** from Microelectronic and Computer Technology Corporation (MCC) as a LSDIS industry sponsor, \$20,000, June 1997.
- **Gift** from Hewlett-Packard Labs as a LSDIS industry affiliate, \$12,500 (annual gifts for 1995,'96,'97, '98).
- **Gift** from L G Electronics Research Center of America as a LSDIS industry sponsor, \$25,000, February 1998.

Industry Donations Received (total value over \$650,000)

- Semagix Freedom, \$255,000, 2005.
- Microsoft Research, donation of all requested software and training for Computer Science department (to support teaching) and LSDIS lab (for use in research), 1999.
- Informix Universal Server and other software (first receipt of grant program), Informix, \$120,000, since April 1997. Renewed in 1998 and 1999 (value undetermined).
- Also from PictureTel live 200P and Developer's Tool kit, donated by PictureTel Corp., \$6,775, June 1996, Virage's Visual Information Retrieval System, (value not assigned) March 1997, MARGI's MPEG-to-GO, (value not assigned) June 1997, POET (December 1998), Object Design Inc. (December 1998).
- I-Kinetics DataBroker and Open JDBC, \$19,396, September 1997.
- Persistence, donated by Persistence Software Inc. \$61,275, July 1995. Also, May 1997.
- ORBeline 2.0 and BlackWidow licenses (6), donated by PostModern Computing (first grant recipient of CORBA2.0 product), \$83,700, March 1996.
- ORBIX and related products, donated by IONA Technologies, \$45,295, October 1996. Again in 1998 (value undetermined).
- Illustra Server licenses (5) and several databases, awarded through a competitive grant program, Illustra Information Technology, Inc., \$17,373.50, August 22, 1995.

Recognition, outstanding achievements and honorary appointments

- **IEEE Fellow** elected on November 13, 2005 by IEEE Board of Directors with citation "for contributions to information integration and workflow management," Class of 2006.
- International Scientific Advisory Committee, BISCSE 2005: Forging New Frontiers, 40th of Fuzzy Pioneers (1965-2005), Berkeley CA, November 2-6, 2005.
- 2004 IBM Faculty Award, March 2004.
- UGA Career Center Recognition/Award for "*greatly contributing to the career development of UGA students*," (based on post-graduation student surveys), September 2002.
- **Patent** co-inventor (Sheth, Avant and Bertram), "System and Method for Creating Semantic Web and Its Applications in Browsing, Searching, Profiling, Personalization and Advertisement" (# 6,311,194), October 30, 2001. **Patent** co-inventor (Georgakopoulos, Rusinkiewicz, Sheth) (# 5,241,675), August 31, 1993.
- Advisory Board, Coco-Cola Center for Marketing Studies, Terry college of Business, 2002-2003.
- **International Advisory Board**, Internet Information Retrieval Research Center (IRC), Hankuk Aviation University, Korea, 2001 – 2002.
- **Board of Directors**, Healthcare Open Systems & Trials (HOST) consortium, 1995—1999.
- Member of the two-person International Advisory Board, TARA Project, University of Tsukuba, Japan. 1994–1996.
- Selected and served as an **ACM Lecturer**, 1991–'92. Again for 1992–1993.

- **Outstanding Paper Award**, (co-author) the 7th International Conference on Data Engineering, Kobe, Japan, April 1991.
- Six Recognition of Service Awards/Certificates of Appreciation from the IEEE TC on Data Engineering and the IEEE Computer Society- 1989, '90, '91, '92; from IEEE Technical Community on Services Computing- 2004; from the ACM- 1993.
- 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, November 1993. Bellcore Achievement Award, 1989.
- Board of Advisors, Indiana Center for Database Systems, 1991–1993.
- Award from the Federal Computer Conference in recognition of contributions, April, 1989.
- **Best Paper Award**, (co-author) Computer Networking Symposium, 1984.
- National Merit Scholar, Government of India, 1975.

Professional or Scholarly Activities

Editorship and Key Committee/Honorary Memberships

- Advisory Board of [Semantic Web Challenge 2005](#).
- Editor-in-Chief, International Journal on Semantic Web and Information Systems ([IJSWIS](#)), Idea Group Publishing, 2005- .
- Faculty, Biomedical and Health Science Institute, UGA, 2004.
- Editor (with Ramesh Jain), Book Series on Semantic Web and Beyond: Computing for Human Experience, Kluwer Academic Publishers, 2004 - .
- World Wide Web Consortium (W3C) Advisory Committee Member, 2004- .
- Faculty, Institute of Bioinformatics, UGA, 2004- .
- Member, Semantic Web Services Initiative Architecture Committee ([SWSA](#)), 2004 - 2005.
- Member of the Editorial Board, Journal on Web Semantics: Science, Services and Agents on the World Wide Web, 2003 - .
- Member of the Editor Board, IEEE Multimedia, 1998-2004. Also edited Media Reviews.
- Member of the Editorial Board (acting Editor-in-Chief from 9/94 to 3/95), the Journal on Distributed and Parallel Databases, 1992–present.
- Member of the Editorial Board, the International Journal of Intelligent and Cooperative Information Systems, 1995–present.
- Member of the Editorial Board, Information Systems– an International Journal, 1993–present.
- Member of the Editorial Advisory Board, International Journal of Engineering Intelligent Systems, 1993–2000.
- Member of the Editorial Board, the Distributed Systems Engineering Journal, 1993-1999.
- Associate Editor for SIGMOD Record, 1988–present. Also edited research center reports.
- Advisor on Workflow for SIGGROUP (ACM's SIG for GroupWare and GroupWork), 1996–

1999. Also edited a section of the Bulletin.

Tutorial Presentations at International Conferences

41. "[Lifecycle of Semantic Web Processes](#)," (with Jorge Cardoso), The 17th Conference on Advanced Information Systems Engineering (CAiSE'05), Porto, Portugal, June 13, 2005.
42. "Service Oriented Architectures and Semantic Web Processes" (with Jorge Cardoso, Francisco Curbera), [13th International World Wide Conference](#), NY, NY, May 17, 2004.
43. "[Service Oriented Architectures and Semantic Web Processes](#)" (with Francisco Curbera and Kunal Verma), the 2004 IEEE International Conference on Web Services (ICWS 2004), San Diego, California, USA, July 7, 2004.
44. "Semantic Web Processes: Semantics Enabled Annotation, Discovery, Composition and Orchestration of Web Scale Processes," (with Jorge Cardoso), 4th International Conference on Web Information Systems Engineering (WISE 2003), Rome, Italy, December 10-12, 2003. [Abstract](#)
45. "Semantic Web Processes: Semantics Enabled Annotation, Discovery, Composition and Orchestration of Web Scale Processes," (with Jorge Cardoso), 4th International Conference on Web Information Systems Engineering (WISE 2003), December 10-12, 2003, Rome, Italy.
46. "Semantic Web Processes," (with Jorge Cardoso), First German Conference on Multiagent System Technologies and Net Object Days, Erfurt, Germany, September 22-25, 2003.
47. "[Semantic Web Services and Processes: Semantic Composition and Quality of Service](#)," (with Jorge Cardoso and Christoph Bussler), International Federated Conferences: DOA/ODBASE/CooPIS 2002, Irvine, CA, October 28-29, 2002.
48. "Workflow Management: Technology, Experiences and Research", 1998 IEEE International Conference on Data Engineering," (with J. Miller), Orlando, FL, February 1998.
49. "Workflow Automation: Applications, Technology, and Research", 1995 ACM SIGMOD Intl. Conference on Management of Data, San Jose, CA, May 24, 1995, *and* the Intl. Conference On Information Systems Engineering (CAiSE '95), Finland, June 14, 1995.
50. "Multidatabase Interoperation: Perspective of Researchers & Practitioners," the 11th Intl. Conference on Data Engineering, Taiwan, March 1995.
51. "Database and Application Interoperability in Industry: Requirements, Technology, Research Issues and Case Studies," the 6th Intl. Conference on Management of Data, Bangalore, India, December 1994.
52. "Interoperability in Multidatabase Systems," (with Dennis McLeod) the 20th Intl. Conference on Very Large Data Bases, Chile, September 1994.
53. "Interoperability in Multidatabase Systems," course offered by ETH (Swiss Federal Institute of Technology), Zurich, April 1993.
54. "Multidatabase Systems: Technology and Applications," (with M. Rusinkiewicz) the 3rd Intl. Conference on Data Engineering, Vienna, Austria, April 1993.
55. "Issues and Applications Support in Interoperable Database Systems." IFIP DS-5 Conference on Semantics of Interoperable Database Systems, Melbourne, Australia, November 1992.
56. "Multidatabase Applications: Semantics and Systems Issues," (with M. Rusinkiewicz) the 18th Intl. Conference on Very Large Data Bases (VLDB), Vancouver, Canada, 1992.
57. "Federated Databases for Managing Distributed, Heterogeneous, and Autonomous Databases," the 17th VLDB, Barcelona, Spain, September 1991, *and* at the Workshop on

- Federated Databases, Rende, Italy, March 1992.
58. "Heterogeneous Distributed Databases: Issues in Integration," at the ACM SIGMOD Conference, 1989, *and* the 3rd Intl. Conference on Data Engineering, 1987, *and* 1990.
 59. "Integrating Heterogeneous Distributed Databases: Requirements, Concepts, and Solutions," at the Fall Joint Computer Conference, October 1987, Dallas, TX, also at the Intl. Conference on Databases in Parallel and Distributed System (with Prof. A. Elmagarmid), 1988, *and* at the 6th Intl. Conference on Data Engineering, 1990.
 60. "Issues in Managing Interdependent Data," at the Workshop on Management of Interdependent Data (with Profs. A. Elmagarmid and M. Rusinkiewicz), 1990.

Industry Courses and Workshops

61. Semantic Web and Semantic Web Services, Professional Course, University of Medira, Funchal, Portugal, June 16-18, 2005.
62. "Mysteries of Metadata," [Content World 2001](#), Burlingame, CA, May 15, 2001. [3 hours]
63. "Workflow Management: Research, Technology, Products, Applications and Experiences". Course Leaders: A. Sheth and S. Joosten. Course offered by WARIA, Atlanta, GA, August 12-14, 1996. [3 days]

Panel Presentations at Conferences and Workshops

64. "[Semantic Web Services: Past, Present, and Future](#)," International Workshop in Dynamic Web Processes (DWP, 2005), Amsterdam, the Netherlands, December 12, 2005.
65. "FLINT and Semantic Web," BISCSE 2005: Forging New Frontiers, Berkeley CA, November 2-6, 2005.
66. "[Semantic Web Service Ontology Standard](#)," Ontolog Conference Call, October 20, 2005.
67. "Computing for Human Experience and Wellness," Views from the Labs panel at [Emerging Ventures Conference](#), Boston, MA, October 11, 2005.
68. "Future of Semantics," Semantic Technology Conference 2005, San Francisco, CA, March 8, 2005.
69. "Get Ready for Semantic Web," KMWorld/Intranets 2004, October 26, 2004; Santa Clara CA.
70. "The Role of Web Services in Semantic Interoperability and Integration," Dagstuhl Seminar on Semantic Interoperability and Integration, September 20, 2004, Dagstuhl, Germany. [Panel Chair]
71. Web Service Choreography, Panel at WWW2003, Budapest, Hungary, May 22, 2003 [Panel Chair].
72. "Semantic (Web) Technology in Action – today", The Semantic Web – Scientific American article considered harmful? WWW2003, Budapest, May 21, 2003.
73. "Semantics" in the Semantic Web: Is the Domain/Discipline Important?, ODBASE'02, Irvine October 29, 2002.
74. "Summary of NSF Databases and the Semantic Web Workshop," Science on the Semantic Web: Building a New Generation of Environmental Information Systems, Oct. 24, 2002, Newark, NJ.
75. "Research Directions for the Semantic Web," 3rd OntoWeb Meeting, Sardinia, Italy, June 13,

- 2002.
76. "User Experience of Enterprise Semantic Content Management," Symposium on the User Experience of Business Intelligence & Knowledge Management, IBM Almaden Research Center, San Jose, CA, March 18, 2002.
 77. "Semantic Web – Rehash or Research Goldmine," 6th Intl Conference on Cooperative Information Systems (CoopIS 2001), Trento, Italy, September 6, 2001. [Panel Chair]
 78. "Semantic Web – The Road Ahead," The Second International Workshop on the Semantic Web – SemWeb'2001 at WWW10, Hongkong, May 1, 2001.
 79. "Creating Searchable Audio Video Web Sites," Streaming Media West 2000, San Jose, December 14, 2000. "Impact of Broadband", The Internet Entrepreneur Conference, Sponsored by *SiliconIndia*, Atlanta, GA, May 8, 2000. [Panel Chair]
 67. "Future Research in Semantics of Multimedia Systems," 8th IFIP 2.6 Working Conference on Database Semantics (DS-8), Rotorua, New Zealand, January 4-8, 1999.
 68. "Virtual Teams and Infocism: challenges for research in cooperative information systems," Third Conference on Cooperative Information Systems, New York, August 1998. [Panelist and Co-Chair]
 69. "Is Healthcare Ready for Internet? Technology is!" Annual Meeting of the Healthcare Open Systems and Trials Consortium, Washington D.C., November 1997.
 70. "Cooperative Multiagent Systems for the Web," Second IFCIS International Conference on Cooperative Information Systems, Kiawah Island, SC, June 1997. [Panel Chair]
 71. "Active Databases and Agents in Cooperative Information Systems," Second IFCIS International Conference on Cooperative Information Systems, Kiawah Island, SC, June 1997. [panelist]
 72. "World Wide What?," 4th Intl. Conference on Parallel and Distributed Information Systems, Miami, FL, December 20, 1996. [Panelist]
 73. "What Can Database Contribute to Multidisciplinary Research in Work Activities Coordination", Intl. Workshop on Advanced Models and Architectures, Goa, India, September 1, 1996. [Panel Chair]
 74. "Database Research in Workflow Management Systems, Do We Have Anything to Contribute?" Intl. Conference on Cooperative Information Systems (CoopIS'96), June 20, 1996. [Panelist]
 75. "How Do We Meet the Challenges of the Global Computing Revolution" Intl. Conference on Cooperative Information Systems (CoopIS'96), June 21, 1996. [Panelist] [Plenary Session Panel]
 76. "Data Semantics: What, Where and How," the 6th IFIP TC-2 Working Conference on Data Semantics (DS-6), Stone Mountain, Georgia, June 1995. [Panel Chair] [cf. Section 3a, #7]
 77. "Information Resource Discovery: A Torch in the Deep Darkness of the Information Superhighway?", the 11th Intl. Conference on Data Engineering, Taiwan, March 1995. [Panel Chair]
 78. "Where are Distributed Databases headed," at the 6th Intl. Conference on Management of Data, Bangalore, India, December 1994. [Panelist]
 79. "Challenges in Global Information Systems," at the 20th Intl. Conference on Very Large Data Bases, Chile, September 1994. [Panelist]
 80. "Why do we need Extended Transaction Models?" at the 16th IEEE-CS Computer Software &

- Applications Conference (COMPSAC92), September 1992. [Panelist]
81. "Dealing with Heterogeneous Databases: Is the Research on Right Track?" at the 2nd Intl. Conference On Systems Integration, Morristown, PA, June 1992. [Panel Chair]
 82. "Key Information Management Issues in the Real World," (final plenary session panel) the US West-NSF-DARPA Workshop on Heterogeneous Databases and Semantic interoperability, Boulder, CO, February 1992. [Panelist]
 83. "Cooperative Database Design," at the 17th IVLDB, Barcelona, September 1991. [Panelist]
 84. "Resolving Semantic Heterogeneity," at the 6th Intl. Conference on Data Engineering, Los Angeles, CA, February 1990. [Panelist]
 85. "Does loose AI-DBMS coupling stand a chance?," at the 5th Intl. Conference on Data Engineering, Los Angeles, CA, February 1989. [Panel Chair]
 86. "Can we meaningfully integrate drawing, text, image, and voice with structured data?" at the 4th Intl. Conference on Data Engineering, Los Angeles, CA, February 1988. [Panel Chair]
 87. "When will we have true Heterogeneous Databases," at the Fall Joint Computer Conference, October 1987. [Panelist]
 88. "Improving Concurrency in Distributed Systems," at the 3rd Intl. Conference on Data Engineering, February 1987. [Session Discussant]

Invited and Colloquia Talks (partial list, not including conference and workshop paper presentations/talks)

89. "Web Service Semantics – WSDL-S," W3C Advisory Committee Meeting, Montreal, Canada, November 30, 2005.
90. "What can Semantics do for Bioinformatics," Special Seminar, Institute of Bioinformatics, University of Georgia, September 22, 2005.
91. "Semantic Web Applications in Enterprises and Scientific Research," W3C Advisory Committee Meeting, Cannes-Mandelieu, France, June 7, 2005.
92. "Semantic Web: Technology & Applications in Search, Digital Media/Content Management, Science and National/Homeland Security," Digimarc Corp., Portland, OR, May 3, 2005.
93. "Semantics in the Semantic Web– the implicit, the formal and the powerful (with a few examples from Glycomics)," Berkeley Initiative in Soft Computing (BISC) Seminar, University of California-Berkeley, October 26, 2004.
94. "Web Services to Semantic Web Process," Tsinghua University, Beijing, China, September 16, 2004.
95. "Semantic Web Technology in Action: From Search and Integration to Analytics," Shanghai Jiao Tong University, Shanghai, China, September 15, 2004.
96. "Semantic Web Technology Evaluation Ontology (SWETO): A test bed for evaluating tools and benchmarking semantic applications," WWW2004 Developers' Day, New York, NY, May 22, 2004.
97. "Semantic Web in Action," NASA Ames Research Center, Menlo Park, CA, April 1, 2004.
98. "[Semantic Web in Action](#)," IBM Almaden Research Center, January 13, 2004.
99. "Semantic Discovery and its applications to Homeland Defense and Bioinformatics," Georgia Technology Institute, Atlanta, GA, November 24, 2003.
100. "Ontology-driven Information Systems: From Research to Reality," Boeing PhantomWorks, Seattle, WA, September 17, 2003.
101. "Semantic Web Process Lifecycle: Role of Semantics in Annotation, Discovery,

- Composition and Orchestration," IBM T.J. Watson Research Center, Hawthorne, NY, July 10, 2003.
102. "Ontology Driven Information Systems in Action: Capturing and Applying Existing Knowledge to Semantic Applications," University of Namur, Belgium, June 24, 2003.
 103. "Semantic Web Applications and Next Generation Content Management," Hongik University, Seoul, Korea, October 30, 2001.
 104. "Web, Semantics, OIL and FUEL: Semantic Interoperability and learning on the Web," Stanford University Database Seminar, October 20, 2000.
 105. "Mapping your job search process while balancing Career Growth, Pay and Security," ACM Student Chapter First Annual ACM Dinner, Athens, GA, April 5, 2001.
 106. "Changing Focus on Interoperability in Global Information Systems," Technical Speaker Series, MITRE, December 3, 1998.
 107. "Enabling Virtual Teams and Infocsm," Bell Communications Research, December 2, 1998.
 108. "METEOR System for Distributed, Multi-paradigm Workflow Management," invited technical presentation, CERN, Geneva, Switzerland, March 31, 1998.
 109. InfoHarness and InfoQuilt: Steps towards enabling Infocsm through Semantic Interoperability," colloquium talk, University of California, Santa Barbara, March 5, 1998.
 110. "InfoHarness and InfoQuilt Projects", CNN Interactive, Atlanta, GA, April 21, 1997.
 111. "Information (Super) Highway: New Opportunities for Global Competitive Advantage for Developing Countries", H. M. College, Ahmedabad, India, September 12, 1996.
 112. "Information (Super) Highway: New Opportunities for Global Competitive Advantage for Developing Countries", IEEE Computer Society, Gujarat, India, September 11, 1996.
 113. "Media-independent Correlation and Access of Heterogeneous Digital Information", Indian Space Research Organization, Ahmedabad, India, September 9, 1996.
 114. "Adapt/X Harness System for Managing Heterogeneous Information in Internet and Intranets", Conference on Very Large Databases, Bombay, India, September 4, 1996.
 115. "Transactional Workflow Management: Research, Technology and Applications", Indian Institute of Management, Ahmedabad, India, December 1994.
 116. "Issues in Interoperable Information Systems", Indian Institute of Technology, Bombay, India, December 29, 1994.
 117. "Multi-Database Systems: Research and Reality", ACM Lecture Series Talk, Univ. of Michigan, November 1994.
 118. "Transactional Workflow Systems", ACM Lecture Series Talk, Wayne State University, Detroit, Michigan, November 17, 1994.
 119. "Multi-Database Systems: Research and Reality", ACM Lecture Series Talk, ACM Professional Chapter, Ann Arbor, Michigan, November 17, 1994.
 120. "Multi-system Applications and Transactional Workflows", George Mason University, Fairfax, VA, May 1994.
 121. "Multisystem Applications and Transactional Workflows", University of California, Riverside, April 1994.
 122. "Transactional Workflow Management: Research, Technology and Applications", State University of New York, Albany, March 1994.
 123. "Transactional Workflow Management: Research and Applications", Bell Labs, Murray Hill, NJ, July 1993.
 124. "Transactional Workflow Management: Research and Applications", Matsushita Information Technology Laboratory, Princeton, NJ, June 1993.
 125. "Management of Interdependent Data: Specification, Enforcement and Applications",

- University of Zurich, Zurich, Switzerland, May 1993.
126. "Schematic and Semantic Heterogeneity", ETH (Swiss Federal Insu. of Technology), Zurich, Switzerland, May 1993.
 127. "Multisystem Workflow Applications", University of Munich, April 1993.
 128. "Management of Interdependent Data: Specification, Enforcement and Applications", George Mason University, Fairfax, VA, March 1993.
 129. "BERDI: A Schema Design, Analysis and Integration Toolkit", Hewlett Packard Labs, February 1993.
 130. "The CHIME Project", Microelectronics and Computer Corporation, Austin, Texas, January 1993.
 131. "Multidatabase Systems: Research and Reality", Queensland University of Technology, Brisbane, Australia, November 1992.
 132. "Federated Databases for Managing Distributed, Heterogeneous, and Autonomous Databases", La Trobe University, Bandoora, Australia, November 1992.
 133. "Management of Interdependent Data: Specification, Enforcement and Applications", ETH (Swiss Federal Inst. of Technology), Zurich, Switzerland, October 1992.
 134. "Management of Interdependent Data", IBM-European Networking Center and Scientific Research Heidelberg, Heidelberg, Germany, October 1992.
 135. "Transactional Workflow Management: Specification and Enforcement", IPSI-GMD, Darmstadt, Germany, October 1992.
 136. "Federated Databases for Managing Distributed, Heterogeneous, and Autonomous Databases", Univ. Ulm, October 1992.
 137. "The BrAID System for Integrating AI and DBMS Systems", Fern Universitat, Hagen, Germany, October 1992.
 138. "Multidatabase Systems: Research and Reality", Simon Fraser University, Vancouver, Canada, August 1992.
 139. "Management of Interdependent Data in Multidatabase Systems", U of Maryland-BC, May 1992.
 140. "Management of Interdependent Data", IPSI-GMD, Darmstadt, Germany, March 1992.
 141. "Semantics Issues in Schema Integration", IPSI-GMD, Darmstadt, Germany, March 1992.
 142. "Federated Databases for Managing Distributed, Heterogeneous, and Autonomous Databases", CRAI, Italy, March 1992.
 143. "Data Consistency and Work Flow Management in Multidatabase Systems", VTT (National Research Center of Finland), Helsinki, Finland, March 1992.
 144. "Management of Interdependent Data in Multidatabase Systems", Matsushita Information Technology Laboratory, Princeton, NJ, February 1992.
 145. "Management of Interdependent Data: A Case Study at Bellcore", Microelectronics and Computer Corporation, Austin, Texas, January 1992.
 146. "Research Issues in Schema Integration and View Update", University of Houston, October 1991.
 147. "Federated Database Systems", Boeing, Seattle, WA, October 1991.
 148. "Federated Database Systems", ACM professional chapters at Piscataway, NJ, April 1991.
 149. "Schematic and Semantic Issues in Schema Integration", New Jersey Institute of Technology, Newark, March 1991.
 150. "Federated Database Systems: Architecture and Alternatives", New Jersey Institute of Technology, Newark, January 1991.

151. "Integrating Heterogeneous Distributed Databases: Requirements, Concepts and Solutions", New Jersey Institute of Technology, Newark, October 1990.
152. "Research Issues in Schema Integration and View Update", Purdue University, West Lafayette, Indiana, October 1990.
153. "Federated Databases for Managing Distributed, Heterogeneous, and Autonomous Databases", IBM-European Networking Center and Scientific Research Heidelberg, Germany, August 1990.
154. "View Update Using Knowledge at View Definition and View Update Time", IPSI-GMD, Darmstadt, Germany, August 1990.
155. "Federated Databases for Managing Distributed, Heterogeneous, and Autonomous Databases", Fern Universitat, Hagen, Germany, August 1990.
156. "Federated Database Systems", Bell Communications Research, Red Bank, New Jersey, February 1990.
157. "Integrating Heterogeneous Distributed Databases: Requirements, Concepts and Solutions", University of California, Los Angeles, October 1988.
158. "View Update Using Knowledge at View Definition and View Update Time", Fern Universitat, Hagen, Germany, March 1988.
159. "View Update Using Knowledge at View Definition and View Update Time", INRIA, France, March 1988.
160. "View Update Using Knowledge at View Definition and View Update Time", Unisys West Coast Research Center, April 1987.
161. "Integrating Heterogeneous Distributed Databases", University of Minnesota, September 1986.

Technical Meetings (Conferences, Workshop) Organization

1. **Program Co-Chair**, [4th International Conference on Business Process Management](#) (BPM 2006), Vienna, Austria, September 2006.
2. Organization Committee Co-Chair, [Advances in Semantics for Web services Workshop](#) (semantics4ws'06), at BPM 2006, Vienna, Austria, September 4, 2006.
3. **Program Co-Chair**, **AI-Driven Technologies for Services-Oriented Computing** (AAAI-06 Workshop), Boston, MA, July 16-17, 2006.
4. Organization Committee, the International Workshop on Distributed Applications for B2B Integration ([DABI 2006](#)), to be held in conjunction with 26th ICDCS, Lisboa, Portugal, July 4-7, 2006.
5. Organizing Committee, ESWC'06 Industry Forum Day Business Applications of Semantic Web technology, Budva, Montenegro, 11-June 14, 2006.
6. Steering Committee, [Semantic Web Services Challenge 2006](#): Challenge on Automating Web Services Mediation, Choreography and Discovery, Stanford University, 2006.
7. **General Chair**, the Third International Workshop on Semantic Web and Databases (ICDE [SWDB'06](#)) at ICDE2006, April 3, 2006, Atlanta, GA.
8. **PC Co-chair**, the International Workshop on Semantics enabled Networks and Services (ICDE [SeNS 2006](#)) at ICDE2006, April 7, 2006, Atlanta, GA.
9. **Co-organizer**, "[Semantic Web meets eGovernment](#)," AAAI Spring Symposium Series (SSS-06), Sanford University, CA, March 27-29, 2006.
10. **Co-chair**, Organization Committee, the International Workshop in Dynamic Web Processes ([DWP 2005](#)) at ICSOC 2005, Amsterdam, NL, December 12, 2005.

11. **Co-chair**, 2nd International Workshop on [Semantic and Dynamic Web Processes](#)” (SDWP2005) Orlando, FL, USA, July, 2005.
 12. **Co-organizer**, [Semantic Interoperability and Integration](#), Dagstuhl Seminar 04391, September 19-24, 2004, Dagstuhl, Germany.
 13. **Program Co-Chair**, 2004 IEEE International Conference on Services Computing (SCC 2004), Shanghai, China, September 15-18, 2004.
 14. **Co-organizer**, First International Workshop on Semantic Web Services and Web Process Composition” (SWSWPC 2004) San Diego, California, USA, July 6-9, 2004.
 15. **Co-organizer**, NASA Workshop on the Knowledge Integrating *Virtual Iron Bird*, March 31-April 2, 2004.
 16. **Co-Chair**, UCGIS Homeland Security Workshop, Nov 5-7, Amicalola Falls and State Park, GA, Nov. 5-7, 2003.
 17. **Co-Chair**, Workgroup on Semantic Web, NSF 2002 Workshop on Information and Data Management, Arlington, VA, May 5-7, 2002.
 18. **Organizer/Chair**, NSF-EU Invitational Workshop on Database and Information Systems Research for Semantic Web and Enterprises, (Robert Meersman, Co-Organizer), Amicalola State Park, GA, April 3-5, 2002.
 19. **Co-Organizer**, The Second International Workshop on the Semantic Web – SemWeb’2001 at WWW10, Hongkong, May 1, 2001.
 20. **Program co-chair**, IEEE conference on Advances in Digital Library, May 2000, Washington DC.
 21. **Co-Director**, NATO Advanced Study Institute on Workflow Systems and Interoperability, August 12-22, 1997, Istanbul, Turkey.
 22. **General (Co-)Chair**, the 1st International Conference on Interoperable and Cooperative Information Systems (CoopIS ’96), June 1996.
 23. **Program Chair** and Organizing Committee Chair, NSF workshop on Workflow and Process Automation: State-of-the-art and Future Directions, May 1996.
 24. **Program (Co-)Chair**, the 3rd International Conference on Parallel and Distributed Information Systems, 1994.
 25. **Program Vice Chair**, Technology and Applications Track, the 10th International Conference on Data Engineering, 1994.
 26. **Program (Co-)Chair** for the 3rd RIDE–International Workshop on Interoperability in Multidatabase Systems, April 1993.
 27. **General Chair**, the 1st International Conference on Parallel and Distributed Information Systems, 1991.
 28. **Program Vice-Chair** for the 6th IEEE International Conference on Data Engineering, 1990.
 29. **Chair** for the Workshop on Management of Interdependent Data in Bellcore and BCCS, 1990.
 30. **Program Vice-Chair** for the 5th IEEE International Conference on Data Engineering, 1989.
- Other Organization Committee Roles**
31. Sponsorship Chair, International Semantic Web Conference, Athens, GA, November 2006.
 32. **Panel Chair**, Federated Conferences ODBASE/CooPIS 2002, Irvine CA, October 2002.
 33. **Steering Committee**, Science on the Semantic Web: Building the Next Generation of Environmental Information Systems, Rutgers University, NJ, October 24, 25, 2002.
 34. **Steering Committee Chair and founder**, 1st ACM International Conference on Work

- Activity Coordination and Collaboration, February 1999, San Francisco, CA.
35. **Panel Chair**, 5th International Conference on Information and Knowledge Management (CIKM'96), Rockville, MD, November 12–16, 1996.
 36. **Panel Co-Chair**, The 22nd International Conference on Very Large Data Bases, Bombay, India, September 1996.
 37. Founding Member and **Executive Committee Member**/Treasurer, International Foundation on Cooperative Information Systems, 1995–present.
 38. **Steering Committee Member**, International Conference on Parallel and Distributed Information Systems, 1995–present.
 39. Panel Chair and Member of Organization Committee, the 6th IFIP TC-2 Working Conference on Data Semantics (DS-6), Stone Mountain, GA, June 1995. **Tutorial Chair** for the ACM SIGMOD Conference, 1993.
 40. **Tutorial Chair** for the 7th IEEE International Conference on Data Engineering, 1988 and 1991.
 41. **Secretary and Treasurer** of the executive committee of the IEEE CS TC on Data Engineering, 1992–present.
 42. **Publication Chair** for the 1st International Workshop on Interoperability in Multidatabase Systems (IMS '91) April 1991.
 43. **Associate Editor** for SIGMOD Record, 1988–2005.
 44. **Tutorial Chair** for the 4th IEEE International Conference on Data Engineering, 1988.

Program Committee Member for the International Conferences and Workshops

1. 4th IEEE International Conference on Web Services, Chicago, Illinois, USA, September, 2006.
2. 1st Asian Semantic Web Conference, Beijing, China, September 5 - 7, 2006.
3. 21st National Conference on Artificial Intelligence (AAAI-06), July 16–20, 2006, Boston, MA.
4. 3rd Annual European Semantic Web Conference ([ESWC2006](#)), Budva, Montenegro, June 2006. (Senior PC Member)
5. 14th International World Wide Web Conference- WWW2006: XML and Web Services track, Edinburgh, May 22-26, 2006.
6. IEEE Intelligence and Security Informatics (ISI) Conference, San Diego, CA, May 22-24, 2006.
7. [IEEE International Conference on Granular Computing](#), Atlanta, GA, May 10-12, 2006.
8. 14th International World Wide Web Conference- WWW2006:E* track, Edinburgh, May 22-26, 2006.
9. 22nd International Conference on Data Engineering, April 3-7, Atlanta, GA, 2006.
10. 2nd International Workshop on Database Interoperability (InterDB2006), April 2006.
11. 6th International Conference on Web Information Systems (WISE 2005), New York, NY, December 2005.
12. 1st International Conference on Geospatial Semantics (GeoS 2005), Mexico City, Nov 29-30, 2005.
13. 4th International Semantic Web Conference (ISWC 2005)- Senior PC member, Research/Academic Track, Galway, Ireland, November 6-10, 2005.
14. 4th International Semantic Web Conference (ISWC 2005)- Industrial Track, Galway, Ireland, November 6-10, 2005.

15. 4th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE), Agia Napa, Cyprus, Oct 31 - Nov 4, 2005.
16. K-Cap Workshop on Integrating Ontologies, Banff, Canada, October 2, 2005.
17. IFIP Working Conference on Virtual Enterprises (PRO-VE'05), Valencia, Spain, September 26-28, 2005.
18. 2005 IEEE Service International Conference on Services Computing (SCC 2005), July 12 - 15, 2005, Orlando, Florida, USA.
19. 3rd IEEE International Conference on Web Services, Orlando, Florida, USA, July 12-15, 2004.
20. 1st International Workshop on "Contexts and Ontologies: Theory, Practice and Applications" (an AAAI'05 Workshop), Pittsburgh, Pennsylvania, USA, July 9-10, 2005.
21. W3C Workshop on Frameworks for Semantics in Web Services, Innsbruck, Austria, June 9-10, 2005.
22. IEEE Intl Conf. on Intelligence and Security Informatics (ISI-2005), Atlanta, GA, May 19-20, 2005.
23. 14th International World Wide Web Conference- WWW2005, Semantic Web Track, Chiba, Japan, May 10-14, 2005.
24. 21st International Conference on Data Engineering, Tokyo, Japan, April 2005.
25. 1st UK Young Researchers Workshop on Service Oriented Computing (YR-SOC), Leicester, UK, April 21 - 22, 2005.
26. 2nd International Conference on Service Oriented Computing (ICSOC'04), New York, NY, November 15-19, 2004.
27. 3rd International Conference on Semantic Web, Industry PC, Hiroshima, Japan, November 7-11, 2004.
28. 1st International Workshop on Semantic Web Technologies in Electronic Business, Berlin, Germany, October 11-13, 2004.
29. AAAI 2004 Workshop on Semantic Web Personalization, San Jose, CA, USA, July 25-26, 2004.
30. IEEE International Conference on Web Services (ICWS 2004), San Diego, CA, USA, July 6-9, 2004.
31. 14th International World Wide Web Conference (WWW2004): Web Services track, New York, May 17-22, 2004.
32. 14th International World Wide Web Conference (WWW2004): Semantic Web track, New York, May 17-22, 2004.
33. 2nd Workshop on Semantics in Peer-to-Peer and Grid Computing (at WWW2004), New York, May 17-18, 2004.
34. 4th International Conference on Web Information Systems Engineering (WISE'03), Roma, December 10-12, 2003.
35. 2nd International Conference on Ontologies, DataBases, and Applications of Semantics for Large Scale Information Systems (ODBASE'03), Sicily. November 3-7 2003.
36. 12th International Conference on Information and Knowledge Management (CIKM 2003), New Orleans, LA, November 2-8 2003.
37. 2nd International Semantic Web Conference, Sanibel, Florida, October 20-24, 2003. (Senior PC Member)
38. Semantic Integration Workshop (at ISWC2003), Sanibel Island, Florida, October 20, 2003.
39. Workshop on Semantic Web Technologies for Searching and Retrieving Scientific Data (at ISWC2003), Sanibel Island, Florida, October 20, 2003.

40. Workshop on Practical and Scalable Semantic Systems (at ISWC2003), Sanibel Island, Florida, USA, October 19, 2003.
41. The 2003 IEEE/WIC International Conference on Intelligent Agent Technology (IAT 2003), Beijing, China, October 13-17, 2003.
42. 3rd Annual International Conference on Object-Oriented and Internet-based Technologies, Concepts, and Applications for a Networked World, Thuringia, Germany, October 7-10, 2002.
43. ICEC Workshop on Semantic Web Services for Enterprise Application Integration and E-Commerce, Pittsburg, PA, USA, September 3- October, 3, 2003.
44. Workshop on Semantic Web and Databases at the VLDB 2003, Berlin, Germany, September 25, 2003.
45. Semantic Web Services for Enterprise Application Integration and E-Commerce (SWSEE03), Pittsburgh, PA, September 30, 2003.
46. International Workshop on Cooperative Information Agents (CIA 2003) to be held in Helsinki (Finland), August 27 - 29, 2003
47. 4th Annual International Conference on Object-Oriented and Internet-based Technologies, Concepts, and Applications for a Networked World, Thuringia, Germany, September 22-25, 2002.
48. IEEE Conference on E-Commerce (CEC03), Newport Beach, CA, June 24-27 2003.
49. 7th International Workshop CIA-2003 on Cooperative Information Agents, Helsinki, Finland, August 27 - 29, 2003.
50. 1st Workshop on Semantics in Peer-to-Peer and Grid Computing at WWW 2003, Budapest, Hungary, 20 May 2003.
51. Workshop on Semantic Web and Databases, Berlin, Germany, September 13-14, 2003.
52. IEEE International Conference on Electronic Commerce (CEC'03), Newport Beach, CA, June, 2003.
53. 13th International World Wide Web Conference (WWW2003), Budapest, Hungary, May 20-24, 2003.
54. 3rd International Symposium on Multi-Agent Systems, Large Complex Systems, and E-Businesses (MALCEB'2002), Erfurt/Thuringia, Germany, 8-10 October 2002.
55. Net.Object Days 2002, Erfurt, Germany, October 7-10, 2002.
56. 2nd International Workshop on Databases, Documents, and Information Fusion (DBFusion 2002), University of Karlsruhe, Germany, July 4-5, 2002.
57. 1st International Conference on Ontologies, DataBases, and Applications of Semantics for Large Scale Information Systems (ODBASE'02), Oct. 29-31, 2002.
58. 6th Intl Workshop CIA-2002 on Cooperative Information Agents, Madrid, Spain,, September 18-22, 2002.
59. 1st WWW 2002 Workshop on Real World RDF and Semantic Web Applications, Honolulu, Hawaii, USA, May 7, 2002.
60. 2nd International Workshop on Databases, Documents, and Information Fusion, Information Integration and Mining in Databases and on the Web, July 4-5, 2002
61. 1st International Semantic Web Conference (ISWC-2002), Sardinia, Italy, June 10-12, 2002.
62. 11th International World Wide Web Conference (WWW2002)- Semantic Web Track, Hawaii, May 6-11, 2002.
63. 6th Intl Conference on Cooperative Information Systems (CoopIS 2001), Trento, Italy, September 5-7, 2001.
64. 5th Intl Workshop CIA-2001 on Cooperative Information Agents, Modena, Italy, September 6

- 8, 2001.
- 65. International Semantic Web Workshop: Infrastructure and Applications for the Semantic Web, Stanford, July 30-31, 2001.
- 66. Autonomous Agents 2001, Montreal, Canada, 28 May - 1 June 2001
- 67. 2nd International Workshop on the Semantic Web – SemWeb’2001 at WWW10, Hongkong, May 1, 2001.
- 68. International Workshop on Information Integration on the Web - Technologies and Applications, Rio de Janeiro, Brazil, April 9-11, 2001
- 69. 5th Intl Workshop on Groupware (CRIWG’99) September 21-24, 1999, Cancun, Mexico.
- 70. 3rd International Workshop on Cooperative Information Agents CIA-99 to be held in Stockholm (Sweden), July 31 - August 2, 1999.
- 71. 9th RIDE Intl. Workshop on Information Technology for Virtual Enterprises, Sydney, Australia, March 23-24 1999.
- 72. Interop’99 2nd International Conference on Interoperating Geographic Information Systems, Zurich, Switzerland, March 10-12 1999.
- 73. 5th International Conference of Foundations of Data Organization (FODO’98), Kobe Japan, November 12-14, 1998.
- 74. CSCW Workshop on Adaptive Workflow Systems, Seattle, WA, November 14, 1998.
- 75. 11th International Conference on Parallel and Distributed Computing Systems, September 2-4, 1998, Chicago, IL.
- 76. International Workshop on Workflow Management, WFM’98, Vienna, Austria, August 28, 1998.
- 77. 3rd IFCIS International Conference on Cooperative Information Systems (CoopIS’98), August 1998, New York, NY.
- 78. 18th Intl. Conf. on Distributed Computing Systems, Amsterdam, The Netherlands, May 1998.
- 79. 6th Intl. Conf. on Extending Data Base Technology (EDBT’98), Valencia, Spain, March 23-27, 1998.
- 80. ACM SIGMOD Conference, Seattle, Washington, June 2-4, 1998.
- 81. Visual ’97, the Second Intl. Conf. on Visual Information Systems, San Diego, December, 15-17, 1997.
- 82. Intl. Conf. on Management of Data (COMAD’97), Madras, India, December 1997.
- 83. 8th Intl. Conf. on Database and Expert Systems Applications (DEXA’97), Toulouse, France, September 1-5, 1997.
- 84. 7th IFIP 2.6 Working Conference on Database Semantics (DS-7), Leysin, Switzerland, October, 7-10, 1997.
- 85. 2nd IEEE Metadata Conference, Silver Spring, Maryland, September 16-17.
- 86. 1st IFCIS Conf. on Cooperative Information Systems (COOPIS’96), Belgium, June 1996.
- 87. 5th Intl. Conf. on Extending Database Technology (EDBT’95), Avignon, France, March 1996
- 88. 4th Intl. Conf. on Information and Knowledge Management, Baltimore, MD, November 1995
- 89. 7th Intl. Conf. on Management of Data (COMAD’95), Pune, India, December 1995
- 90. 5th IEEE RIDE Workshop on Interoperability of Nontraditional Databases (RIDE-IND’96)
- 91. 12th IEEE Intl. Conference on Data Engineering, New Orleans, February. 1996

92. 14th Object-Oriented and Entity Relationship Modeling'95 (OO-ER95, 12/95, Gold Coast, Australia)
93. IFIP DS-6 Database Application Semantics (5/95, Georgia)
94. 2nd Next Generation Information Technologies and Systems (NGITS-95, 6/95, Israel)
95. 4th Extending Database Technology '95 (EDBT'95)
96. 11th IEEE Intl. Conference on Data Engineering (Taipei, Taiwan, 04/95)
97. 20th Intl. Conf. on Very Large Data Bases (VLDB-94, 9/94, Chile)
98. 1st Application of Database Systems '94 (6/94, Sweden)
99. Cooperative Information Systems (CoopIS-94, 5/94, Canada)
100. 10th IEEE Intl. Conference on Data Engineering (04/94).
101. 2nd Intl. Conference on Information and Knowledge Management (1993).
102. 9th IEEE Intl. Conference on Data Engineering (Vienna, 04/93).
103. 2nd Parallel & Distributed Information Systems (San Diego PDIS-93, 01/93).
104. IFIP DS-5 Semantics of Interoperable Data Base Systems-92 (Australia 11/92).
105. RIDE IEEE Intl. Workshop on Transaction and Query Processing (Phoenix 02/92).
106. 8th IEEE Intl. Conference on Data Engineering (Phoenix, 02/92).
107. 1st Intl. Conference on Information and Knowledge Management (1991).
108. Distributed Computing System (1991).
109. RIDE IEEE Intl. Workshop on Interoperability in Multidatabase Systems (Japan 04/91).
110. 7th IEEE Intl. Conference on Data Engineering (Japan, 04/91).
111. COMAD/Management of Data (Bombay 12/91).
112. PARBASE-90 (Florida, 1990).
113. 2nd Intl. Symposium on Database in Parallel and Distributed Systems (1990)
114. 1st Intl. Symposium on Database in Parallel and Distributed Systems (1988)
115. 4th IEEE Intl. Conference on Data Engineering (Los Angeles, 02/88)

Other Services (Sessions, Reviews, Funding Panels)

Services to National and international funding Agencies as Proposal Reviewer

- **USA** (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).
- **Australian Research Council**, Expert Assessor of International Standing, 2003.
- **Canada** (National Science and Engineering Research Council) NSF equivalent-national research sponsorship organization (reviewer for several years).
- **Singapore** (Science & Engineering Research Council Agency for Science), 2005.
- **Austria** (Fonds zur Forderung der: FWF) 1999.
- **Norway** (Research Council of Norway) 1996, 1997, 1998, 2002, 2003.
- **The Netherlands** (the Netherlands Organization for Scientific Research, NOW), 2003, 2005.
- **Israel** (The Israel Science Foundation), 1996.

- **Hong Kong** (National Research Grants Council), 1996.
- Science Foundation, **Ireland**, 2001.
- German-Israeli Foundation for Scientific Research and Development, 2006.

Chaired technical sessions

- DWP2005, WWW2004 (5/2004), WWW2003 (5/2003), 2nd International Workshop on the Semantic Web (5/2001), 8th IFIP 2.6 WC on Database Semantics (DS-8) (01/1999), IFIPWG 11.5 Conference on Integrity and Control in Information Systems (12/1997), 12th ICDE (02/96), 11th ICDE (04/1995), 4th IEEE RIDE (03/1995), 10th ICDE (05/1995), 9th ICDE, 04/1993), 7th ICDE (04/1991), 6th ICDE (02/1990), Etc.

Services to Journals as Referee

IEEE Trans. on Knowledge and Data Engineering, VLDB Journal, Information Systems, Intelligent Information Systems, Distributed Systems Engineering, Distributed and Parallel Databases, Intelligent and Cooperative Information Systems, ACM Transactions on Database Systems, ACM Transactions on Information Systems, IEEE Transaction on Computers, Computer, ACM Computing Surveys, IEEE Transaction on Software Engineering, BMC Bioinformatics, Journal of Selected Areas in Communication, Information Sciences, Software-Practice and Experiences, Information and Software Technology, Information Technology & Management, Journal of Web Semantics, and many more.

Society Memberships

Senior Member (2003-present), Member, IEEE and IEEE Computer Society, including Technical Committee on Database Engineering, 1981-present. Member, Association for Computing Machinery, including SIGMOD, 1981-present, SIGGROUP, 1997 – 2002.

Curriculum Development (Initiatives and Courses)

Initiatives

- On the steering committee of New Media Institute, approved starting Fall 2000. A campus-wide initiative covering many disciplines.
- On the steering committee of Masters in Internet Technology program, expected to be approved starting Fall 2000. An inter-disciplinary professional degree program proposed by Management Sciences (Business School), Computer Science, and School of Journalism.

New Courses Defined/Offered

- Semantic Web Services and Processes, CSCI 8351, defined and offered Spring 2004, (formerly, Semantic Enterprise ,defined and offered Fall 2002). For advanced graduate students, the earliest offering of a course on this topic in the world.
- Semantic Web (defined and offered Spring 2002). For advanced graduate students, one of the earliest offering of a course on this topic in the world.
- Global Information Systems: Promises and Challenges (defined and offered since 1995). For Computer Science seniors and graduate students, also taken often by students in other disciplines. One of the earliest Internet-related courses, with innovative mix of internet technologies and information systems.
- Enterprise Integration (defined and offered from 1995 - 2000). A one-of-a-kind course for

Computer Science graduate students, sometimes taken by students in management. Covers issues in complex enterprise-wide solutions in real-world. Main emphasis is on distributed computing and information systems and e-commerce technologies, but also shares real-world experiences.

- Internet Programming, 2000. For the new Masters in Internet Technology program.
- Internet Information Systems, 2000. For the new Masters in Internet Technology program.

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 (since 1994)

Courses taught

CS 837	Advanced Database Systems	W '95
CS 490	Special Topics in Computer Science	Sp '95
CS 690	Special Topics in Computer Science	Sp '95
CS 203	Programming Project Design	F '95
CS 490	Global Information Systems	W '96
CS 690	Global Information Systems	W '96
CS 835	Enterprise Integration	W '96
CS 203	Programming Project Designs	F '96
CS 490	Global Information Systems	W '97
CS 690	Global Information Systems	W '97
CS 835	Enterprise Integration	W '97
CS 203	Programming Project Designs	F '97
CS 490	Global Information Systems	W '96
CS 690	Global Information Systems	W '98
CS 835	Enterprise Integration	W '98
CS 690	Advanced Global Information Systems	Sp '98
CSCI6350	Global Information Systems	F '99
CSCI8350	Enterprise Integration	Sp '99
CSCI8350	Enterprise Integration (w/ Arpinar)	Sp '00
CSCI8350	Enterprise Integration (w/ Cardoso)	Sp '01
CSCI8350	Semantic Web	Sp '02
CSCI8350	Semantic Enterprise	F'02
CSCI4350/6350	Global Information Systems	S'03
CSCI8350	Semantic Web	F'03
CSCI8351	Semantic Web Services & Processes	S'04
CSCI8350	Semantic Web	F'04
CSCI4350/6350	Global Information Systems	S'05
CSCI8350	Semantic Web	F'05
CSCI8351	Semantic Web Services & Processes	S'06

Supervision of Student Research

Major Professor for the students

- Vipul Kashyap (Ph.D.), "Information Brokering over Heterogeneous Digital Data," October 1997. (Note: Student's degree is from Rutgers University, NJ, but Dr. Sheth is his research advisor.)
- Devashish Worah (M.S.), "Error Handling and Recovery for the ORBWork Workflow Enactment Service in METEOR," June 1997.
- Srilekha Mudumbai (M.S.), "ZEBRA Image Access System," June 1997.
- Selvam Velmurugan (M.S.), "Collaborative Tele-Consulting for Healthcare," September 1997.
- Krishnan Parsuraman (M.S.), "Agent Support in the InfoQuilt System," December 1998.
- Clemens Bertram (M.S.), "Metadata and Ontology Based Query Processing in the InfoQuilt System, December 1998.
- Vineet Mahajan, M.S., "A Multi-Agent System for Metadata Management and Information Brokering ", December 1999.
- Subrajit Ray, M.S., "Ontology-based Media Independent Correlation of Information Across Heterogeneous Distributed Sources", December 1999.
- Mukesh Guntamadugu, M.S., "[MÉTIS: Automating Metabase Creation from Multiple Heterogeneous Sources](#)," July 2000.
- Dilpreet Singh "[An Agent Based Architecture For Query Planning And Cost Modeling Of Web Sources](#)," July 2000.
- Sriram Lakshminarayan, "Semantic Interoperability in Digital Libraries using Inter-Ontological Relationships," July 2000.
- Narayan Palsena, M.S., "A Collaborative Approach to Learning using Information Landscapes," 2000.
- Zhongqiao Li, M.S., "Using Collaboration Task in OrbWork Enactment System for METEOR Workflow Management System, August 2000.
- Zongwei Luo, Ph.D., Knowledge Sharing, Coordinated Exception Handling, and Intelligent Problem Solving for Cross-Organizational Business Processes, February 2001.
- Sanjeev Thacker, M.S., "Knowledge Modeling for Study of Domains and Inter-domain Relationships - A Learning Paradigm," July 2001.
- Shuchi Patel, M.S., "Planning and Optimizing Semantic Information Requests on Heterogeneous Information Sources Using Semantically Modeled Domain and Source Characteristics," July 2001.
- Wonjung Kim, M.S., "Knowledge Based Personalization," December 2001.
- Madhan Arumugam, M.S., "[The Peer-to-Peer Semantic Web : A Distributed Environment for Sharing Semantic Knowledge on the Web](#)", December 2001.
- Jorge Cardoso, Ph.D., [Quality of Service and Semantic Composition of Workflows](#), August 2002.
- Kaarthik Sivashanmuga, M.S. (co-advisor), "The METEOR-S Framework for Semantic Web Process Composition," August 2003.
- Abhijit Patil, M.S., METEOR-S Web Service Annotation Framework, December 2003.
- Rohit Aggrawal, M.S., August 2004. (co-advisor).
- Swapna Onudhakar, M.S., December 2004.
- William Milnor M.S. (co-advisor), Discovering Informative Subgraphs in RDF Graphs, August 2005.

External Academic Advising

- External expert reviewer for Ph.D. candidate Manuel Garcia Solaco, Facultat d'Informatica de

- la Universitat Politècnica de Catalunya, Barcelona, 1994.
- External advisor and dissertation committee member for Ph.D. student George Karabatis, Univ. of Houston, "Management of Interdependent Data in a Multidatabase Environment: A Polytransaction Approach", May 1995.
 - Member of Ph.D. dissertation committee for Quiang Zhu, "Estimating Local Cost Parameters for Global Query Optimization in a Multidatabase System", University of Waterloo, Canada, August 1995.
 - Member of Ph.D. dissertation committee (Jury) for Philippe Thiran, [Legacy database federation. A combined forward-Reverse approach](#), Institut d'Informatique, F.U.N.D.P. (Univ. of Namur), Belgium, September 2003.

Supervised research of Eduardo Mena (Ph.D. candidate, Basque State University, Spain) during his one year work at LSDIS Lab, UGA in 1996 (12 months).

Supervising research of Isabel Scheiding (Ph.D. candidate, University of Frankfurt, Germany) during her work at LSDIS Lab, UGA between July 1997 and December 1997.

Supervised research of Tascisio Lima (Ph.D. student, University of Brazil) during his work at LSDIS Lab, UGA, August 1998- June 2000.

University and Public Service

Served as the primary consultant and directed development to benefit UGA administration in the form of CAPA for the Vice President for Academic Affairs (7/96 – 6/97) and GradWeb for the Graduate School (7/97 – 6/97). Both are fully functional/operational Web-based applications.

- Institute of Bioinformatics, membership committee, 2004-present.
- GIScience Faculty Resource at UGA, 1997 - present. <http://summer2002.ucgis2.org/>
- Mentored one faculty and one student under 1995 Summer Undergraduate Research Program for Minority Students and Faculty in Minority Institutions.
- Mentored two students under 1996 Summer Undergraduate Research Program for Minority Students.
- Occasionally given talks and demonstrations on Computers for Kids and on Culture at Athens Montessori.

Service provided in the form of committee participation is as follows.

- Member of Graduate Faculty, 1994 – present.
- Participation in Departmental Committees:
 - Equipment Committee, 1994 – present.
 - Faculty Search Committee, 1995, 2000, 2004.
 - Graduate Admissions Committee, also Aid Committee, 1996 – present.
 - Space Committee, 1997 – 1998.