CV – Professor Leon Sterling

Education

BSc (Hons) (Mathematics and Computer Science), University of Melbourne, 1976

PhD (Mathematics), Australian National University, 1981

Graduate, Australian Institute of Company Directors, 2012

Academic Positions

- ❖ Emeritus Professor, Swinburne University of Technology, 2015 - current
- ❖ Chair, Academic Board, Edvantage Institute Australia, 2019 - current
- ❖ Professor of Software Engineering (Teaching Specialist), University of Melbourne, 2019-2021
- ❖ Pro Vice-Chancellor (Digital Frontiers), Swinburne Univ. of Technology, 2014 - 2015
- ❖ Dean, Faculty of Information and Communication Technologies, Swinburne University of Technology, 2010 - 2013
- ❖ Director of eResearch, University of Melbourne, June 2007 – December, 2010
- ❖ Chair of Software Innovation and Engineering, University of Melbourne, 2002-2010
- ❖ Head, Department of Computer Science and Software Engineering, University of Melbourne, 1996-2002
- ❖ Professor of Computer Science, University of Melbourne, 1995-2002
- ❖ Director, Center for Automation and Intelligent Systems Research, Case Western Reserve University, Cleveland, OH, USA, 1989-1991
- ❖ Faculty member, Department of Computer Engineering and Science, Case Western Reserve University, Cleveland, OH, USA, 1985-1995 (Joined as Assistant Professor (1985), promoted to Associate Professor (1989) and Full Professor (1993))
- ❖ Dov Biegun Postdoctoral Fellow, Department of Computer Science, Weizmann Institute of Science, Rehovot, Israel, 1983-1985
- ❖ Research Fellow, Department of Artificial Intelligence, University of Edinburgh, Edinburgh, Scotland, 1980-1983

Fellowships

Fellow, Engineers Australia, 1999-present

Fellow, Australian Computer Society 2001-present

Dozor Fellow, Ben Gurion University, Israel, Dec. 2000-Jan. 2001

Paul Callaghan Visiting Professorial Fellow,
   Victoria University, Wellington, New Zealand, 2015-2017

Awards

John Hughes Distinguished Service Award, CORE, Computing Research & Education Australia, 2015

Key Professional Activities

Australian Council of Deans of ICT (ACDICT)

Treasurer, 2010 – 2011
Vice-President, 2011 – 2012
President, 2012-2014,
Past President, 2014-2015
(Examples of policies and engagement while ACDICT President are listed on
    http://www.acdict.edu.au/documents.htm)

Computing Research and Education (CORE)

President, 2001-2005

Exec member 2001-2009

(Responsible for merging the Computer Science Association and the Heads and Professors of Computer Science into a more effective organization)

Australian Mathematics Trust

Board Member, 2008 – present, Deputy Chair, 2019 - current

Chair, Australian Informatics Olympiad Committee, 2008 - 2017

(Advocate for including informatics/algorithmics in the Maths Curriculum)

iAwards and AIIA

Category Judge for student domain comprising school, undergraduate and post-
    graduate students, 2014-present

Judges Council member, 2014-present

Club Melbourne Ambassador, 2010-present

Hosted two breakfast meetings on 'Impediments to introducing Technology for
    Aged Care' and 'Platforms for Collaboration'

Helped bring ACL 2017 to Melbourne

Australian Research Council

Member, College of Experts, 2012-2014

Chair, REC MIC Panel for ERA 2015

Collaboration with ACER (Australian Council for Educational Research)

Invited speaker, ACER Annual conference, 2016

Member of STEM Video Games committee, 2014-2017

Participant, Principal for a Day, 2015-2017

Pearcey Institute   (https://pearcey.org.au/pearcey-institute/)

Director, 2018-present, Academic Advisor, 2015-2017

Smart Services Cooperative Research Centre

Board member, 2013-2015

SeniorPreneurs Foundation (http://seniorpreneurs.org.au/)

Responsible for hosting in early days at Swinburne in 2014-2015
Chair, Advisory Committee, 2015 – 2016
Board member, 2016-present

Victorian Partnership for Advanced Computing (VPAC)

Board member, 2008-2011   Member, Audit and Risk Committee, 2011

Software Engineering Australia (Vic.)

Board member, 1998-2000

Australia and New Zealand College of Anaesthetists
ICT Governance Committee, 2016 -present

Technical Advisor for Startup Companies

Cashtivity, 2013 – present (http://www.cashtivity.com/)
        P*latform originally for teaching business literacy for school students, which has pivoted for teaching maths through real world applications*

Cuuble, 2015 – present (www.cuuble.com
        A self-managed software technology and networking platform created for families and communities to own, brand, operate and connect and care for each other

Discovering without Borders, 2015 – present (www.d-w-b.org)
    *A social enterprise to allow children of all abilities equal opportunity and access to learn **STEM** subjects in a hands on interactive way*

August Robotics, 2016 – present (http://www.augustrobotics.com/)
        Startup Robotics company

Inteconnekt, 2017 – present (http://interconnekt.com.au/)
        Networking SME

TelUs, 2014- 2015 (https://www.meetup.com/Startuphealthtech/mes-sages/boards/thread/48715375)
    TelUs was to provide tech support for older adults by older adults especially for health tech. It was disbanded and was absorbed into Seniorpreneurs activities.

Books

Sterling, L. and Taveter, K. The Art of Agent-Oriented Modeling, MIT Press, 2009

Sterling, L. and Shapiro, E. The Art of Prolog: Advanced Programming Techniques, 2nd edition, MIT Press, 1994

Sterling, L. and Shapiro, E. The Art of Prolog: Advanced Programming Techniques, MIT Press, 1986

Edited Collections

Klusch, M., Hindrichs, K., Papazoglu, M. and Sterling, L. (eds.) Cooperative Information Agents, CIA2007, Springer LNAI 4676, Springer-Verlag, 2007

Sterling, L. (ed.) Intelligent Systems - Concepts and Applications, Plenum Press, 1993

Sterling, L. (ed.) The Practice of Prolog, MIT Press, 1990

Journals

Wachtler, C., Coe, A., Davidson, S., Fletcher, S., Mendoza, A., Sterling, L., Gunn, J., Development of a Mobile Clinical Prediction Tool to Estimate Future Depression Severity and Guide Treatment in Primary Care: A User Centered Design, JMIR MHealth and UHealth, 2018 Apr 23;6(4):e95. doi:10.2196/mhealth.9502

Felip Martí Carrillo, Joanna Butchart, Sarah Knight, Adam Scheinberg, Lisa Wise, Leon Sterling, and Chris McCarthy. 2018. Adapting a General-Purpose Social Robot for Paediatric Rehabilitation through In Situ Design. ACM Trans. Human-Robot Interaction 7, 1, Article 12 (May 2018), 30 pages. DOI: https://doi.org/10.1145/3203304

Pedell, S., Keirnan, A., Priday, G., and Sterling, L. Methods for Supporting Older Users in Communicating Their Emotions at Different Phases of a Living Lab Project. Technology Innovation Management 7 (2) 7-19, 2017

Thomas Neil, Farhall John, Foley Fiona, Rossell Susan, Castle David, Ladd Emma, Meyer Denny, Mihalopoulos Cathrine, Leitan Nuwan, Nunan Cassy, Frankish Rosalie, Smark Tara, Farnan Sue, McLeod Bronte, Sterling Leon, Murray Greg, Fossey Ellie, Brophy Lisa, Kyrios Michael,   Randomised controlled trial of a digitally assisted low intensity intervention to promote personal recovery in persisting psychosis: SMART-Therapy study protocol Journal: BMC Psychiatry 2016, 16:312

Thomas, N., Farhall, J., Foley, F., Leitan, N. D., Villagonzalo, K.-A., Ladd, E., Nunan, C., Farnan, S., Frankish, R., Smark, T., Rossell, S., Sterling, L., Murray, G., and Kyrios, M. (2016). Promoting Personal Recovery in People with Persisting Psychotic Disorders: Development and Pilot Study of a Novel Digital Intervention. *Frontiers in Psychiatry*, *7*, 196. http://doi.org/10.3389/fpsyt.2016.00196

Miller, T, Pedell, S., Lopez-Lorca, A, Mendoza, A, Sterling, L, and Keirnan, A. Emotion-ally-driven models for people-oriented requirements engineering: the case study of emergency systems, Journal of Systems & Software, Vol, 105, pp. 54-71, 2015

Kissoon Curumsing, M., Lopez-Lorca, A., Miller, T., Sterling, L., and Vasa, R., Viewpoint modelling with emotions: A case study, International Journal People Oriented Programming, 4(2), pp. 25-53, 2015

Goschnick, S., Sterling, L., and Sonenberg, L., Modelling Human Activity in People-Oriented Programming with Metamodels, International Journal People Oriented Programming, 4(1), pp. 1-24, 2015

Miller, Tim; Lu, Bin; Sterling, Leon; Beydoun, Ghassan; Taveter, Kuldar, Requirements elicitation and specification using the agent paradigm: the case study of an aircraft turnaround simulator. IEEE Transactions on Software Engineering. Vol. 40, no. 10, pp. 1007-1024, 2014

Pedell, S., Miller, T., Sterling, L., Vetere, F. and Howard, S., Tools for participation: inter-generational technology design for the home, International Journal of Design, Vol. 8, no. 2, pp. 1-14, 2014

Miller, T., Pedell, S., Sterling, L., Vetere, F., and Howard, S., Understanding socially oriented roles and goals through motivational modelling, *Journal of Systems and Software*, 85(9); 2160-2170, 2012

Paay, J., Pedell, S., Sterling, L., Vetere, F., and Howard, S. The Benefit of Ambiguity in Understanding Goals in Requirements Modelling, International Journal of People-Oriented Programming (IJPOP) 1 (2), 24-49, 2011

Paay, J., Sterling, L., Vetere, F., Howard, S. and Boettcher, A. Engineering the social: The role of shared artifacts, *International Journal of Human-Computing Studies*, 67(5), pp. 437-454, 2009

Ben-David, A., Sterling, L., and Tran, T.D. Adding Monotonicity to Learning Algorithms may impair their Accuracy, *Expert Systems with Applications*, 36(3), pp. 6627-6634, 2009

Oluyomi, A., Karunasekera, S., and Sterling, L. Description Templates for Agent-Oriented Patterns, *Journal of Systems and Software*, 81, pp. 20-36, 2008

Antoniou, G., Sterling, L., Gritzalis, S., Parampalli, U. Privacy and forensics investigation process: The ERPINA protocol, *Computer Standards & Interfaces Journal*, 30(4), pp. 229-236, 2008

Keogh, K., Sterling, L., and Venables, A. A Scalable and Portable Structure for Conducting Successful Year-long Undergraduate Software Team Projects, *Journal of Information Technology Education*, 6(1), pp. 515-540, 2007

Oluyomi, A., Karunasekera, S., and Sterling, L. A Comprehensive View of Agent-Oriented Patterns, *Journal of Autonomous Agents and Multi-Agent Systems*, 15(3), pp. 337-377, 2007

Ronald, N., Sterling, L. and Kirley, M. An Agent-Based Approach to Modelling Pedestrian Behaviour*, International Journal of Simulation: Systems, Science & Technology*, *Special issue on IT-Based Modelling in Logistics,* 8(1), pp. 25-38, 2007

Rahwan, I., Juan, T. and Sterling, L. Integrating Social Modelling with Agent Interaction through Goal-Oriented Analysis, *Journal of Computer Systems Science and Engineering*, special issue; Software Engineering for Multi-Agent Systems, 21(2), 2006, pp. 87-98

Ben-David, A. and Sterling, L. Generating Rules from Examples of Human Multiattribute Decision Making Should Be Simple, in *Expert Systems With Applications*, 31(2), August 2006, pp. 390-396

Mascardi, V., Martelli, M. and Sterling, L. Logic Based Specification Languages for Intelligent Software Agents, *Theory and Practice of Logic Programming,* 4(4), July 2004, pp. 429-494

Araban, S. and Sterling, L. Quality of Service for Web Services, *WSEAS Transaction on Computers*, 4(3), 2004, pp. 1136-1141

Sterling, L., Naish, L. and Hermenegildo, M. Editorial on 'Logic programming and the Internet' in *Theory and Practice of Logic Programming,* **1**(3), 2001, pp. 249-250

Naish, L. and Sterling, L. Stepwise Enhancement and Higher Order programming in Prolog, *Journal Functional and Logic Programming*, (4), MIT Press (electronic journal), 2000, pp 1-30

Kazmierczak, E., Dart, P., Sterling, L. and Winikoff, M. Verifying Requirements through Mathematical Modelling and Animation in *International Journal of Software Engineering and Knowlege Engineering*, 10(2), 2000, pp. 251-273

Marling, C., Petot, G. and Sterling, L.   Integrating Case-Based and Rule-Based Reasoning to Meet Multiple Design Constraints in *Computational Intelligence*, 15(3), 1999, pp. 308-332

Loke, S., Sterling, L. and Sonenberg, E. A Knowledge-Based Approach to Domain-Specialized Information Agents in *Journal of Internet Research*, 9(2), 1999, pp. 140-152

Schmidt, C., Dart, P., Johnston, L., Sterling, L. and Thorne, P. Disincentives for Communicating Risk: A Risk Paradox in *Information And Software Technology*, 41(7), 1999, pp. 403-411

Osborn, J. and Sterling, L. Automated Concept Identification within Legal Cases, in *Journal of Information, Law and Technology (JILT)*, 1, 1999 (http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/1999-1/osborn)

Petot, G., Marling, C. and Sterling, L. An Artificial Intelligence System for Computer-Assisted Menu Planning in *Journal of the American Dietetic Association*, 98(9), 1998, pp. 1009-1014

Quinn, R., Causey, G., Merat, F., Sargent, D., Barendt, N., Newman, W., Velasco, D., Podgurski, A., Jo, J., Sterling, L., and Kim, Y. An Agile Manufacturing Workcell Design in *IIE Transactions* (Focussed Issue on Agile Manufacturing), 29, 1997, pp. 901-909

Sterling, L. and Yalçinalp, L.Ü. Logic Programming and Software Engineering Implications for Software Design, *Knowledge Engineering Review*, 11, 1996, pp. 1-13

Sterling, L., Petot, G., Marling, C., Kovacic, K. and Ernst, G. The Role of Common Sense Knowledge in Menu Planning in *Expert Systems with Applications*, 11(3), 1996, pp. 301-308

Sterling, L., Ciancarini, P. and Turnidge, T. On the Animation of 'not executable' Specifications by Prolog in *International Journal of Software Engineering and Knowledge Engineering*, 6, 1996, pp. 63-87

Ciancarini, P. and Sterling, L. Report on the Workshop: Applications of Logic Programming in Software Engineering, Italy, June 1994, in *Knowledge Engineering Review*, 10(1), 1995, pp 97-100

Renard, F., Sterling, L. and Brosilow, C. Knowledge Verification in Expert Systems Combining Declarative and Procedural Representations, in *Computers and Chemical Engineering,* 17, 1993, pp. 1067-1090

Schwartz, D. and Sterling, L. Using a Prolog Meta-Programming Approach for a Blackboard Application in *Applied Computing Review*, 1, 1993, pp. 27-34

Kirschenbaum, M., Sterling, L. and Jain, A. Relating Logic Programs via Program Maps in *Annals of Mathematics and Artificial Intelligence*, 8, 1993, pp. 229-245

Beer, R., Chiel, H.J. and Sterling, L. An Artificial Insect in *American Scientist*, 79, 1991, pp. 444-452

Ben-David, A. and Sterling, L. Symbolic and Numeric Knowledge Integration in Multiple Fault Troubleshooting in *Expert Systems with Applications*, 2(4), 1991, pp. 353-359

Yalçinalp, L.Ü. and Sterling, L. DIagnosing Jaundice Expert SysTem in *Computer Math. with Applications*, 20, 1990, pp. 125-140

Lakhotia, A. and Sterling, L. How to Control Unfolding when Specializing Interpreters in *New Generation Computing*, 8, 1990, pp. 61-70

Sterling, L. and Nygate, Y. PYTHON: An Expert Squeezer in *Journal of Logic Programming*, 8, 1990, pp. 21-40

Bansal, A. and Sterling, L. An Abstract Interpretation Scheme for Identifying Inherent Parallelism of Logic Programs in *New Generation Computing*, 7, 1990, pp. 273-324

Beer, R.D., Chiel, H.J. and Sterling, L. A Biological Perspective on Autonomous Agent Design in *Journal of Robotics and Autonomous Systems*, 6, 1990, pp. 169-186

Bansal, A. and Sterling, L. Classifying Generate-and-Test Logic Programs in *International Journal of Parallel Processing*, 8(4), 1989, pp. 401-446

Sterling, L. and Beer, R.D. Meta-Interpreters for Expert System Construction in *Journal of Logic Programming*, 6(1-2), 1989, pp. 163-178

BenDavid, A., Sterling L. and Pao, Y.H. Learning and Classification of Monotonic Ordinal Concepts in *Computational Intelligence,* 5 (1), 1989, pp. 45-49

Sterling, L., Bundy, A., Byrd, L., O'Keefe, R., and Silver, B. Solving Symbolic Equations with PRESS in *Journal of Symbolic Computation,* 7, 1989, pp. 71-84

Lakhotia, A. and Sterling, L. Composing Recursive Logic Programs with Clausal Join in *New Generation Computing,* 6(2), 1988, pp. 211-225

Bundy, A. and Sterling, L. Meta-Level Inference: Two Applications in *Journal of Automated Reasoning,* 4, 1988, pp. 17-27

Fateman, R., Bundy, A., O'Keefe, R. and Sterling, L. Commentary on: Solving Symbolic Equations with PRESS, SIGSAM Bulletin, 1988

Sterling, L. and Codish, M. PRESSing for Parallelism: A Prolog Program Made Concurrent in *Journal of Logic Programming*, 3, 1986, pp. 75-92

Sterling, L. and Lalee, M. An Explanation Shell for Expert Systems in *Computational Intelligence*, 2, 1986, pp. 136-141

Sterling, L.   Logical Levels of Problem Solving in *Journal of Logic Programming*, 1, 1984, pp. 138-145

Grunewald, F., Siegel, D. and Sterling, L. Nilpotent Groups of Hirsch Length 6 in *Math Z.*, 179, 1982, pp. 219-235

Sterling, L. Computing Invariants for Finitely Presented Nilpotent Groups in *Bull. Austral. Math. Society*, 24, 1981, pp. 317-318

Havas, G., Richardson, J.S. and Sterling, L. The Last of the Fibonacci Groups in *Proceedings of the Royal Soc. Edinburgh*, 83A, 1979, pp. 199-203

Sterling, L. and Wormald, N. A Remark on the Construction of Designs for Two-way Elimination of Heterogeneity in *Bull. Austral. Math. Society*, 14, 1976, pp. 383-388

Edited Journal Special Issues

Goschnick, S. and Sterling, L. (Eds): International Journal People Oriented Programming, Special Issue on Kids and Other Novices Learning to Code: Insights, Tools and Lessons from the Visual Programming Frontline, 4(1), 2015

Sterling, L., Miller, T. and Lopez-Lorca, A. (Eds): International Journal People Oriented Programming, Special Issue Emotions and People-Oriented Programming, 3(1), 2014

Dix, J., Fisher, M., Levesque, H. and Sterling, L. Guest Editor's Introduction, Logic-based Agent Implementation, *Annals of Mathematics and Artificial Intelligence*, 41(2-4), August 2004, pp. 131-133

Sterling, L., Naish, L. and Hermenegildo, M. (eds.), Applications of Logic Programming to the Internet, Theory and Practice of Logic Programming, 2001

Sterling, L. (ed.), Applications of Logic Programming, Journal of Logic Programming, 1996

Ciancarini, P. and Sterling, L. Applications of Logic Programming in Software Engineering, International Journal of Software Engineering & Knowledge Engineering, 6(1), 1996

Sterling, L. (ed.), Practical Applications of Prolog, Applied Computing Review, 2(2), 1994

Sterling, L. (ed.), Applications of Logic Programming, Journal of Logic Programming, 8, 1990

Edited Proceedings

Klusch, M., Hindrichs, K., Papazoglu, M. and Sterling, L. (eds.) Cooperative Information Agents, CIA2007, Springer LNAI 4676, Springer-Verlag, 2007

Leite, J., Ominici, A., Sterling, L. and Torroni, P. (eds.) Declarative Agent Languages and Technologies, Papers from the First Intl. Workshop, DALT 2003, Springer LNAI 2990, Springer Verlag, 2004-.

Grant, D. and Sterling, L. (eds.) ASWEC-2001, Australian Software Engineering Conference, Canberra, 2001.

Sterling, L. (ed.) Twelfth International Conference on Logic Programming, MIT Press, Japan, June, 1995.

Sterling, L. (ed.) Second International Conference on Practical Applications of Prolog, London, April, 1994.

Adams, A. and Sterling, L. (eds.) AI-92, World Scientific Press, 1992

Book Chapters

Sterling, L., Burrows, R., Barnet, B., Taﬀe, S., McDonald, R., Emotional Factors for Teleaudiology, in Saunders, E., (Ed) Tele-Audiology and the Optimization of Hearing Healthcare Delivery, IGI Global, appearing, January 2019

Sterling, L. Incorporating End-users' Emotion and Satisfaction, in Chapter 10, Arvind K. Bansal, Javed I. Khan and Kaisar Alam (eds.), *Computational Health Informatics,* First edition, Publisher: CRC Press / Taylor and Francis, Boca Raton, Florida, USA, ISBN: 978-1-4987-5663-1, forthcoming 2019

Sterling, L., Lopez-Lorca, A. and Kissoon-Curumsing, M. (2018). Adding Emotions to Models in a Viewpoint Modelling Framework from Agent-Oriented Software Engineering: A Case Study with Emergency Alarms, in S. Goschnick (Ed.), *Innovative Methods, User-Friendly Tools, Coding, and Design Approaches in People-Oriented Programming*. Hershey, PA: Information Science Publishing, pp. 324-367

Paay, J., Sterling, L., Pedell, S., Vetere, F. and Howard, S. (2018). Interdisciplinary Design Teams Translating Ethnographic Field Data into Design Models: Communicating Ambiguous Concepts using Quality Goals, in S. Goschnick (Ed.), *Innovative Methods, User-Friendly Tools, Coding, and Design Approaches in People-Oriented Programming*. Hershey, PA: Information Science Publishing, pp. 226-261

Pedell, S., Lopez-Lorca, A., Miller, T., and Sterling, L., Don't leave me untouched: Considering emotions in personal alarm use and development, in Healthcare Informatics and Analytics: Emerging Issues and Trends, Tavana, Ghapanchi and Talaei-Khoei (eds), Chapter 6, pp. 96-127, IGI Global, 2014

Sterling, L. Why Study Information Technology, in Information Technology and Systems for the Curious: Why Study Information Technology and Systems?, (K, Vaidya,ed.), Amazon Press, 2014

S. Pedell, T. Miller, F. Vetere, L. Sterling, and S. Howard. Socially-oriented requirements

engineering — software engineering meets ethnography. In Perspectives on culture and agent-based simulations / Virginia Dignum and Frank Dignum (eds.), Chapter 11, pp. 191-210, Springer, 2014

Lister, K. and Sterling, L. Integrating a Lightweight Information Agent with the Cyc Knowledge Base, in Dershowitz, N. and Nissan, E. (eds.) Language, Culture, Computation: Essays Dedicated to Yaacov Choueka, Lecture Notes in Computer Science, Vol. 8001, pp. 225-251, Springer-Verlag, Berlin, 2014

Keane, T. and Sterling, L., Providing a healthy digital environment, aligning policy with teacher, student and parent expectations, in From cyber bullying to cyber safety: issues and approaches in educational contexts / Ria Hanewald (ed.), Chapter 3, Nova Science Publishers, 2013.

Lopez-Lorca, A., Beydoun, G., Sterling, L. and Miller, T., An ontology-mediated validation process of software models, in Information systems development: business systems and services: modeling and development / Jaroslav Pokorny, Vaclav Repa, Karel Richta, Wita Wojtkowski, Henry Linger, Chris Barry and Michael Lang (eds.), pp. 455-467, Springer, 2011

Sterling, L. Applying agents within knowledge management, in David G. Schwartz and Dov Te'eni (eds.) Encyclopedia of knowledge management, second edition, vol. 1, chapter 2, pp. 12–19, 2011

Sterling, L. and Taveter, K. A Logic Programming Perspective on Rules, in Adrian Giurca, Dragan Gasevic and Kuldar Taveter (eds.), Handbook of research on emerging rule-based languages and technologies: open solutions and approaches, Chapter 9, pp. 195–213, 2009

Taveter, K. and Sterling, L. Agent-Oriented Software Engineering in Khosrow-Pour, M. (ed.) Encyclopedia of Information Science and Technology, 2nd Edition, IGI Global, 2008

Perugini, D., Lambert, D., Sterling, L. and Pearce, A. Provisional Agreement Protocol for Global Transportation Scheduling. Klugl, F., Bazzan, A., Ossowski, S (eds), In: Applications of agent technology in traffic and transportation, pp. 17-32

Annamalai, M. and Sterling, L. Dealing With Mathematical Relations in Web-Ontologies in Tamma, V., Cranefield, S., Finin, T. and Willmott, S. (eds.) Ontologies for Agents: Theory and Experiences, Birkhäuser, 2005, pp. 201-232

Lister, K., Hristozova, M. and Sterling, L. Reconciling Implicit and Evolving Ontologies for Semantic Interoperability in Tamma, V., Cranefield, S., Finin, T., Willmott, S. (eds.), Ontologies for Agents: Theory and Experiences, Birkhäuser, 2005, pp. 121-144

Sterling, L. Applying Agents for Knowledge Management, in Schwartz, D. (ed.), Encyclopedia of Knowledge Management, Idea Group Reference, Hershey PA, 2005, pp. 368-372

Oluyomi, A. and Sterling, L. A Dedicated Approach for Developing Agent Interaction Protocols, Intelligent Agents and Multi-Agent Systems 2004, Springer-Verlag, 2005, LNAI volume 3371, pp. 162-177

Goss, S., Heinze, C., Papasimeon, M., Pearce, A. and Sterling, L. Towards Reuse in Agent Oriented Information Systems: The Importance of Being Purposive, in Giorgini, P. and Winikoff, M. (eds) Agent-Oriented Information Systems, Springer-Lecture Notes in CS Vol. 3030, pp. 111-126, 2004 (revised paper)

Cernuzzi, L., Juan, T., Sterling, L. and Zambonelli, F. The GAIA Methodology: Basic Concepts and Extensions, in Bergenti, F., Gleizes, M., and Zambonelli, F. (eds.) Methodologies and Software Engineering for Agent Systems: The Agent-Oriented Software Engineering Handbook, Kluwer, July 2004 , pp. 69 – 88

Juan, T., Sterling, L., and Winikoff, M. Assembling AOSE Methodologies from Features, in F. Giunchiglia, J. Odell, and G. Weiss (eds.) Agent-oriented software engineering III, LNCS Vol. 2585, Springer-Verlag, 2003

Sterling, L. Patterns for Prolog programming, in Kakas, A.C. and Sadri, F (eds.) Computational Logic: Logic Programming and Beyond, Springer LNAI 2407, Springer-Verlag, Berlin, 2002, pp. 374-401

Gao, X. and Sterling, L. Semi-structured Data Extraction from Heterogeneous Sources, in Schwartz, D., Divitini, M., Bratjevik, T. Internet-based Knowledge Management and Organizational Memories, Idea Group Publishing, 2000, pp. 83-102

Gao, X. and Sterling, L. AutoWrapper: Automatic Wrapper Generation for Multiple Online Services, in Young, G. (ed.) World Wide Web: Technologies and Applications for the New Millenium, CSREA Press, 2000, pp. 61-70

Gao, X. and Sterling, L. A methodology for building information agents, in Yang, Y., Li, M. and Ellis, A. (eds.) Web Technologies and Applications, International Academic Publishers, 1998, Chapter 5, pp. 43-52

Sterling, L. and Srinivasan, V. A Generic Scheduling Framework developed in Prolog, in Beierle, C. and Plümer, L. (eds.) Logic Programming: Formal Methods and Practical Applications, North-Holland, pp. 301-322, 1995

Radack, G. and Sterling, L. Reasoning About Symbolic Descriptions of Mechanical Parts, in Dagli, C. and Kusiak, A. (eds.) Intelligent Systems in Design and Manufacturing, ASME Press, 1994, pp. 139-169

Kirschenbaum, M. and Sterling, L. Applying Techniques to Skeletons, in Jacquet, J.M.J. (ed.) Constructing Logic Programs, Wiley & Sons, 1993, pp. 127-140

Sterling, L. Of Using Constraint Logic Programming for Design of Mechanical Parts, in Sterling, L. (ed.) Intelligent Systems - Concepts and Applications, Plenum Press, 1993, pp. 107-116

Sterling, L., Beer, R.D. and Chiel, H.J. Beyond the Symbolic Paradigm, in Flach, P. and Meersman, R.A. (eds.) Future Directions for Artificial Intelligence, North Holland, 1991, pp. 71-79

Beer, R.D., Chiel, H.J. and Sterling, L. A Biological Perspective on Autonomous Agent Design, in Maes, P. (ed.) Designing Autonomous Agents, MIT Press, 1991, pp 169-186

Lakhotia, A. and Sterling, L. ProMiX: A Prolog Partial Evaluation System, in Sterling, L. (ed.) The Practice of Prolog, MIT Press, 1990, pp. 137-179

Beer, R.D., Chiel, H.J. and Sterling, L. Heterogeneous Neural Networks for Adaptive Behavior in Dynamic Environments, in Touretzky, D. (ed.) Advances in Neural Information Processing Systems I, Morgan Kaufmann, 1989, pp. 575-585

Yalçinalp, L.Ü. and Sterling, L. An Integrated Interpreter for Explaining Prolog's Successes and Failures, in Abramson, H. and Rogers, M. (eds.) Meta-Programming in Logic Programming, MIT Press, 1989, pp. 191-203

Sterling, L. A Meta-Level Architecture for Expert Systems, in Maes, P. and Nardi, D. (eds.) Meta-Level Architectures and Reflection, North-Holland, 1988, pp. 301-311

Sterling, L. and Codish, M. PRESSing for Parallelism: A Prolog Program Made Concurrent, in Shapiro, E. (ed.) Concurrent Prolog, (ed. E. Shapiro), MIT Press, 1987, pp. 304-350

Ben-David, A. and Sterling, L.   A Prototype Expert System for Credit Evaluation, in Pau, L.F. (ed) Artificial Intelligence in Economics and Management, Elsevier North-Holland, 1986, pp. 121-128

Refereed Conference Publications

Antonio Lopez-Lorca, Rachel Burrows, Leon Sterling, Teaching Motivational Models in Agile Requirements Engineering; https://ieeexplore.ieee.org/document/8501282

Rachel Burrows, Antonette Mendoza, Leon Sterling, Tim Miller and Sonja Pedell (2019): Evaluating Ask Izzy: A Mobile Web App for People Experiencing Homelessness. In: Proceedings of the 17th European Conference on Computer-Supported Cooperative Work (ISSN 2510-2591), DOI: 10.18420/ecscw2019_ep17

Rachel Burrows, Sonja Pedell, Leon Sterling, Tim Miller, & Antonette Mendoza. (2018). Motivational Goals for using Electronic Health Record Applications, European Network of Living Labs OLLD'18, http://doi.org/10.5281/zenodo.1434908

C. McCarthy, J. Butchart, D. Kerr, M. George, and L. Sterling,   Robots in Rehab: Towards Socially Assistive Robots in Paediatric Rehab, Proc OZCHI 2015

A. Lopez-Lorca, T. Miller, S. Pedell, A. Mendoza, A. Keirnan, and L. Sterling: One Size Doesn't Fit All: Diversifying "The User" using Personas and Emotional Scenarios, Proc. 6th International Workshop on Social Software Engineering (SSE14), Vol. 105, no 2, pp. 25-32, Hong Kong, 2014

H. Davis, S. Pedell, A. Lopez-Lorca, T. Miller, and L. Sterling: Researchers as proxies for informal carers: Photo sharing with older adults to communicate wellbeing, Proc. 26th Australian Computer-Human Interaction Conference (OzCHI 2014), Sydney, Australia, 2-5 Dec 2014, pp. 270-279

S. Pedell, V. Kapadia, F. Khatun, H. Davis, L. Sterling, and P. Ray: A tablet-based interactive wellbeing check prototype for elderly, in Proceedings of HIC conference. 'Ageing well: The contribution that e-health can make', the Aged Care Informatics Conference (ACI 2014), Melbourne, Australia, 13 August 2014

Nominated for Don Walker Award

Mendoza,A. T. Miller, S. Pedell, and L. Sterling: The role of users' emotions and associated quality goals on appropriation of systems: two case studies. Proc. Transforming the future, the 24th Australasian Conference on Information Systems (ACIS 2013), Melbourne, Victoria, Australia, 04-06 December 2013

> A. Mendoza, A., Miller, T., Pedell, S. & Sterling, L. (2013). The role of users' emotions and associated quality goals on appropriation of systems: two case studies. In H. Deng & C. Standing (Eds.), *Proceedings 24th Australasian Conference on Information Systems* (ACIS 2013) (pp. 1-11), Melbourne, Australia: RMIT University.

WaiShiang, C, Sterling, L and Traveter, K Task Knowledge patterns reuse in multi-agent systems development, in Revised selected papers of the 13th International Conference on Principles and Practice of Multi-Agent Systems, volume 7057 of LNAI, pp. 459–474. Springer, 2012

Sterling L and Pedell, S Agent Based Modeling for understanding sustainability, in Agents in principle, agents in practice: proceedings of the 14th International Conference on Principles and Practice of Multi-Agent Systems, volume 7047 of LNAI, pp. 398–409, 2011

Pedell, S., and Sterling, L., The Benefits of Agent-based Motivation Models in Policy Formulation and Implementation. V. Dignum (Ed), Proceedings of the 1st Workshop on Agentbased Modeling for Policy Engineering at AAMAS, 2011

Pedell, S., Miller, T., Vetere, F., Sterling, L., and Howard, S., Substantiating agent-based quality goals for understanding socio-technical systems. V. Dignum (Ed), Proceedings of the 1st Workshop on Agent-based Modeling for Policy Engineering, 2011

Pedell, S., Miller, T., Sterling, L., Vetere, F., and Howard, S., Substantiating agentbased-quality goals for understanding socio-technical systems. In V. Dignum, editor, Proceedings of the 1st Workshop on Agent-based Modeling for Policy Engineering, 2011

Sterling, L., Adaptive: A quality goal for agent-oriented models or a fundamental feature of agents?, Proceedings of the IFAC World Congress, Milan, volume 18, part 1, pp. 8-42, 2011

S. Pedell, F. Vetere, S. Howard, L. Sterling, Miller T., and R. Vutborg. Tools for participation: Intergenerational technology design for the home (extended abstract), in Fifth international conference Design Principles and Practices. Common Ground, 2011

Pedell, S., Miller, T., Sterling, L., Vetere F., Howard, S., and Paay J., Substantiating quality goals with field data for socially-oriented requirements engineering (extended abstract), Proceedings of the Tenth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2011), pp. 1185-1186. IFAAMAS, 2011

Pedell, S., Vetere, F., Howard, S. Miller T., and Sterling, L., Shared artefacts as participatory Babel fish. Proceedings of the 2010 Participatory Design Conference, pp. 167-170. ACM, 2010

Lopez-Lorca, A., Beydoun, G., Sterling, L., and Miller, T., An ontology-mediated validation process of software models, Proceedings of the International Conference on Information Systems Development 2010, pp. 455-467, Springer-Verlag, 2011

Miller, T., Pedell, S., Sterling, L., and Lu, B., Engaging Stakeholders with Agent-Oriented Requirements Modelling, In Agent-oriented Software Engineering XI, volume 6788 of LNCS, pages 62-78, 2011

Cheah, W. and Sterling, L., Task Knowledge Patterns Reuse in Multi-Agent Systems Development, Proceedings of the 13th International Conference on Principles and Practice of Multi-Agent Systems, 2010

Cheah, W. and Sterling, L., Analysis and Classification of Task Knowledge Patterns, Proceedings of the 24th European Conference on Modelling and Simulation, 2010, pp. 34–40

Sterling, L. and Taveter, K., Event-based optimization of air-to-air business processes. N. Stojanovic, A. Abecker, O. Etzion, and A. Paschke (Eds.), Proceedings of the Intelligent Event Processing, AAAI Spring Symposium, AAAI Press, 2009, pp. 80-85

Sterling, L. and Taveter, K., Design of an environment for agent-based simulation of air-toair business processes, Proceedings of the 7th European Workshop on Multi-Agent Systems (EUMAS 2009), Electronic edition, 2009

Sterling, L. and Warburton, J., eResearch training for research higher degree students, Proceedings of eResearch Australasia 2009

Cheah, W. and Sterling, L., Developing Knowledge Models for Multi-Agent Mediator Systems, Proceedings of PRIMA 2007 - 10th Pacific Rim International Conference on Multi-Agents, Springer LNAI, Vol. 5044, pp. 440–445, 2009

Pedell, S., Miller, T., Vetere, F., Sterling, L., Howard, S. and Paay, J., Having fun at home: interleaving fieldwork and goal models, Proceedings of OZCHI 2009, pp. 309-312, 2009

Cheah, W. and Sterling, L., Analysis and Design of Multi Agent Knowledge Development Process, Proceedings of the 19th Australian Software Engineering Conference: ASWEC 2008, pp. 402–411, IEEE Computer Press, 2008

B. Lu, Sterling, L., and Taveter, K., Supporting Evolving Multi-Agent Systems with a System Evolution Directory. Proceedings of the 19th Australian Software Engineering Conference: ASWEC 2008, pp. 180–189, IEEE Computer Press, 2008

Sterling, L., Agent-Oriented Modelling: Declarative or Procedural?, in DALT 2007 — the 5th International Workshop on Declarative Agent Languages and Technologies, Declarative Agent Languages and Technologies V, Lecture Notes in Computer Science Vol. 4897, pp. 1–17, 2008

Annamalai, M. and Sterling, L., On Extending the Knowledge Sharing Practices in Scientific Collaboration to the Semantic Web, Proceedings of the Knowledge Management International Conference, pp. 1–7, 2008

Taveter, K. and Sterling, L. An Expressway from Agent-Oriented Models to Prototype Systems, Proceedings of the Workshop on Agent-Oriented Software Engineering, Hawaii, May, 2007, pp. 192-206

Oluyomi, A., Karunasekera, S., and Sterling, L. A Process for Analyzing Agent-Oriented Patterns. Proceedings of the Workshop on Agent-Oriented Software Engineering, Hawaii, May, 2007, pp. 162-178.

Antoniou, G., Jancic, A., Parampalli, U., and Sterling, L. Applying a cryptographic scheme in the RPINA protocol. Proceedings of the Second International Annual Workshop on Digital Forensics and Incidents Analysis, 27-28 August 2007, Karlovassi, Samos, Greece, pp. 65-74.

Luo, Y, Sterling, L, and Taveter, K. Modelling a Smart Music Player with a Hybrid Agent-Oriented Methodology. Proceedings of the 15th IEEE International Requirements Engineering Conference, pp. 281-286, 2007.

Luo, Y., Antoniou, G., and Sterling, L. Incorporating security requirements into communication protocols in Multi-Agent Software Systems. Proceedings of the 8th International Conference on Parallel and Distributed Computing, Applications and Technologies, pp. 159-160, IEEE Computer Society, 2007.

Lister, K., Sterling, L. and Taveter, K. Reconciling Ontological Differences by Assistant Agents. Proceedings of the Fifth International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-06), Future University, Hakodate, Japan, ACM Press, 2006, pp. 943-945.

Goschnick, S.B., Balbo, S., Sterling, L. and Sun, C. TANDEM - a Design Method for Integrating Web Services into Multi-Agent Systems. Proceedings of the Fifth International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-06), Future University, Hakodate, Japan, ACM Press, 2006, pp. 939-941.

Sterling, L., Taveter, K. and the Daedalus Team Building Agent-Based Appliances with Complementary Methodologies. Proceedings of the Joint Conference on Knowledge-Based Software Engineering 2006 (JCKBSE'06), Tallinn, Estonia, 2006, IOS Press, pp. 223-232.

Stern, L. and Sterling, L. Toward Agents for Educational Software. Proceedings of the ED-MEDIA 2006, Association for the Advancement of Computing in Education, pp. 2040-2047.

Oluyomi, A., Karunasekera, S., and Sterling, L. Design of Agent-Oriented Pattern Templates. Proceedings of the Australian Software Engineering Conference (ASWEC'06), IEEE Press, 2006, pp. 113-121.

Ronald, N., Sterling, L. and Kirley, M. Evaluating JACK Sim for Agent-Based Modelling of Pedestrians. Proceedings of the IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT 2006), Hong Kong, 2006, pp. 81-87.

Oluyomi, A., Karunasekera, S. and Sterling, L. Improved Template for Agent Pattern Description. Proceedings of the International Conference on Intelligent Agent Technology (IAT05), France, 2005 pp. 747-750.

Perugini, D., Lambert, D., Sterling, L. and Pearce, A. From Single Static to Multiple Dynamic Combinatorial Auctions. Proceedings of the International Conference on Intelligent Agent Technology (IAT05), France, 2005, pp. 443-446.

Ronald, N. and Sterling, L. Modelling Pedestrian Behaviour Using the BDI Architecture. Proceedings of the International Conference on Intelligent Agent Technology (IAT05), France, 2005, pp. 161-168.

Ronald, N., Sterling, L. and Kirley, M. A conceptual framework for specifying and developing pedestrian models. Proceedings of the International congress on Modelling and Simulation (MODSIM05), Melbourne, 2005, pp. 2615-2621.

Wilmann, D. and Sterling, L. Guiding Agent-Oriented Requirements Elicitation: HOMER. Proceedings of the Fifth International Conference on Quality Software (QSIC 2005), Australia, 2005, pp. 419 – 424.

Kuan, P., Karunasekera, S. and Sterling, L. Improving Goal and Role Oriented Analysis for Agent Based Systems. Proceedings of the Australian Software Engineering Conference (ASWEC05), Brisbane, Australia, 2005, pp. 40-47.

Araban, S. and Sterling, L. Quality of Service for Web Services. Proceedings of the 3rd International Conference on Software Engineering, Parallel and Distributed Systems (SEPADS), Austria, 2004.

Lister, K. and Sterling, L. Reconciling Heterogeneous Information Sources. Proceedings of the International Semantic Web Conference (ISWC2004), Hiroshima, Japan, 2004, pp. 61–70.

Cordi, V., Mascardi, V., Martelli, M. and Sterling, L. Developing an Ontology for the Retrieval of XML Documents: A Comparative Evaluation of Existing Methodologies. Proceedings of the Agent Oriented Information Systems (AOIS), at AAMAS, New York, 2004, pp. 73-87.

Oluyomi, A., Karunasekera, S. and Sterling, L. An Agent Design Pattern Classification Scheme: Capturing the Notions of Agency in Agent Design Patterns. Proceedings of the 11th Asia-Pacific Software Engineering Conference, APSEC-04, IEEE Computer Society, 2004 pp. 456-463.

Sterling, L. and Juan, T. The software engineering of agent-based intelligent adaptive systems. Proceedings of the 27th International Conference on Software Engineering (ICSE05), St. Louis, USA, 2005, pp. 704-705.

Chan, K., Sterling, L. and Karunasekera, S. Agent-Oriented Software Analysis. Proceedings of the Australian Software Engineering Conference (ASWEC04), Melbourne, Australia, 2004 pp. 20 – 27.

Perugini, D., Lambert, D., Sterling, L. and Pearce, A. Provisional Agreement Protocol for Global Transportation Scheduling, In Workshop on Agents in Traffic and Transportation, at AAMAS-04, New York, 2004.

Perugini, D., Lambert, D. Sterling, L. and Pearce, A. Agent-Based Global Transportation Scheduling in Military Logistics. Proceedings of the 3rd International Joint Conference on Autonomous Agents & Multi Agent Systems (AAMAS04), New York, ACM Press, 2004 pp. 1278-1279.

Juan, T. and Sterling, L. Achieving Dynamic-Interfaces with Agent Concepts. Proceedings of the 3rd International Joint Conference on Autonomous Agents & Multi Agent Systems (AAMAS04), New York, ACM Press, 2004, pp. 690-697.

Araban, S. and Sterling, L. Measuring Quality of Service for Contract Aware Web Services, Proceedings of the First Australian Wokshop on Engineering Service Oriented Systems (AWESOS 2004), School of CSSE, Monash University, Melbourne, Australia, 2004, pp. 54-56.

Chan, K., Sterling, L., Karunasekera, S., Pearce, A. and Juan, T. A Role-Based Methodology for Agent Oriented Software Engineering, Proceedings of the SITCRC Conference, Sydney, Australia, 2003, pp. 131-138.

Annamalai, M. and Sterling,L. Dealing With Mathematical Relations in Web-Ontologies, in AAMAS-03 Workshop on Ontologies in Agent Systems, Melbourne, Australia, 2003, pp. 1–8.

Hristozova, M. and Sterling, L. Experiences with Ontology Development for Value-Added Publishing, Proceedings of the AAMAS-03 Workshop on Ontologies in Agent Systems, Melbourne, Australia, 2003, pp. 17-24.

Perugini, D., Lambert, D., Sterling, S. and Pearce, A. A Distributed Approach to Global Transportation Scheduling. Proceedings of the 2003 IEEE/WIC International Conference on Intelligent Agent Technology, (eds. Liu, J., Faltings, B., Zhong, N., Lu, R. and Nishida, T.), Halifax, Canada, IEEE Computer Society, 2003, pp. 18- 24.

Perugini, D., Lambert, D., Sterling, S. and Pearce, A. Agents in Logistics Planning - Experiences with the Coalition Agents Experiment project. Proceedings of the Workshop 'Agents at Work', held at AAMAS-03, Melbourne, July, 2003.

Goschnick, S. and Sterling, L. An Agent-based Digital Self in a 24x7 Web Services World: Architecture and Implementation. Proceedings of the 2003 IEEE/WIC International Conference on Intelligent Agent Technology, (eds. Liu, J., Faltings, B., Zhong, N., Lu, R. and Nishida, T.), Halifax, Canada, 2003, pp. 175-181.

Cruz, L., Annamalai, M. and Sterling, L. Analysing High-Energy Physics Experiments: A multi-agent approach, in Burg, B., Dale, J., Finin, T., Nakashima, H., Padgham, L., Sierra, C., and Willmott, S.(Eds) Agentcities: Challenges in Open Agent Environments, Springer-Verlag, 2003, pp. 130-134.

Markham, S., Ceddia, J., Sheard, J., Burvill, C., Weir, J., Field, B., Sterling, L. and Stern, L. Applying Agent Technology to Evaluation Tasks in E-Learning Environments. Proceedings of the Exploring Educational Technologies Conference, Monash University, Melbourne, Australia, 2003, pp. 31-3.

Sterling, L., Kazmierczak, E. and Gruba, P. Constructivist Approaches to Communication Skills Development in Software Engineering. Proceedings of the 2003 WFEO/ASEE e-Conference, American Society for Engineering Education, 2003.

Juan, T., Sterling, L., Martelli, M. and Mascardi, V. Customizing AOSE Methodologies by Reusing AOSE Features. Proceedings of the Second International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS-03), (eds. J. Rosenschein, T. Sandholm, M. Wooldridge, M. Yokoo), ACM Press, 2003, pp. 113-120.

Perugini, D., Lambert, D., Sterling, S. and Pearce, A Distributed Information Agents. Proceedings of the 6th International Conference on Information Fusion, Cairns, 2003.

Senyard, A., Kazmierczak, E., and Sterling, L. Software Engineering Methods for Neural Network Development. Proceedings of the Asia-Pacific Software Engineering Conference, Thailand, 2003, 468-477.

Juan, T. and Sterling, L. The ROADMAP meta-model for intelligent adaptive multi-agent systems in open environments. Proceedings of the4th International Workshop on Agent-Oriented Software Engineering (AOSE 2003), Melbourne, Australia, 2003, pp. 53-68.

Annamalai, M. and Sterling, L. Guidelines for Constructing Reusable Domain Ontologies, in Cranefield, S., Finin, T., Tamma, V., Willmott, S. (eds.). Proceedings of the AAMAS-03 Workshop on Ontologies in Agent Systems, CEUR Workshop Series, Volume 73 (2003), http://CEUR-WS.org/Vol-73/ 2003.

Chan, K. and Sterling, L. Light-Weight Agents for E-Learning Environments, in Foundations of Intelligent Systems. Proceedings of the 14th International Symposium, ISMIS 2003, Japan, Springer LNAI 2871, 2003, pp. 197-205.

Juan, T. and Sterling, L. A Meta-model for Intelligent Adaptive Multi-Agent Systems in Open Environments. Proceedings of the Second International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS03), (eds. Rosenschein, J., Sandholm, T., Wooldridge, M. and Yokoo M.), ACM Press 2003, pp. 1024-1025.

Chan, K. and Sterling, L. Specifying Roles within Agent-Oriented Software Engineering. Proceedings of the Asia-Pacific Software Engineering Conference, Thailand, 2003, 390-395.

Lister, K. and Sterling, L. Tasks as Context for Intelligent Agents. Proceedings of the 2003 IEEE/WIC International Conference on Intelligent Agent Technology, (eds. Liu, J., Faltings, B., Zhong, N., Lu, R. and Nishida, T.), Halifax, Canada, IEEE Computer Society, 2003, pp. 154-160.

Goschnick, S. and Sterling, L. Enacting and Interacting with an Agent-based Digital Self in a 24x7 Web Services World. Proceedings of the International workshop on Humans and Multi-Agent Systems, held in conjunction with AAMAS-03, Melbourne, 2003, pp. 28-35.

Heinze, C. and Sterling, L. Using the UML to Model Knowledge in Agent Systems. Proceedings of the First International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-02), Bologna, Italy, 2002, pp. 441-42.

Hristozova, M. and Sterling, L. An eXtreme Method for Developing Lightweight Ontologies. Cranefield, S., Finin, T., and Willmott, S., (eds.), Proceedings of the Workshop on Ontologies in Agent Systems (OAS 2002) held at AAMAS-02, 2002.

Perugini, D., Lambert, D., Sterling, S. and Pearce, A. Agents for Military Logistic Planning. Proceedings of the ECAI-02 Workshop, Lyon, France, 2002, pp. 35-44.

Juan, T., Sterling, L. and Winikoff, M. Assembling Agent Oriented Software Engineering Methodologies from Features. Proceedings of the AOSE III, 2003, pp. 198-209.

Juan, T., Pearce, A., and Sterling, L. ROADMAP: Extending the Gaia Methodology for Complex Open Systems. Johnson, W. and Cristelfranchi, C. (eds.), Proceedings of the First International Joint Conference on Autonomous Agents and Multi-Agent Systems AAMAS-02, Bologna, Italy, ACM Press, 2002, pp. 3-10.

Martelli, M., Mascardi, V. and Sterling, L. Logic-Based Languages to Model and Program Intelligent Agents. Proceedings of the Appia-GULP-Prode-02: Joint Conference on Declarative Programming (eds. Moreno-Navarro, J. and Carballo, J.), Madrid, Spain, 2002 pp. 105-122.

Lister, K. and Sterling, L. Reconciling Ontological Differences for Intelligent Agents. Bouquet, P. (ed), Meaning Negotiation, AAAI Technical Report WS-02-09, AAAI Press, 2002, pp. 78-83.

Lister, K., Hristozova, M. and Sterling, L. Reconciling Implicit and Evolving Ontologies for Semantic Interoperability. Cranefield, S., Finin, T. and Willmott, S., (eds.), OAS-02: Ontologies in Agent Systems, Proceedings of the Workshop on Ontologies in Agent Systems, 1st International Joint Conference on Autonomous Agents and Multi-Agent Systems, CEUR, Volume 66, 2002.

Annamalai, M., Sterling, L. and Moloney, G. A Collaborative Framework for Distributed Scientific Groups. Cranefield, S., Finin, T. and Willmott, S., (eds), OAS-02: Ontologies in Agent Systems, Proceedings of the Workshop on Ontologies in Agent Systems, 1st International Joint Conference on Autonomous Agents and Multi-Agent Systems, CEUR, Volume 66, 2002.

Cruz, L., Annamalai, M. and Sterling, L. Analyzing High Energy Physics Experiments: A Multi-Agent Approach. Proceedings of the Workshop on AgentCities, AAMAS-02, Bologna, Italy, 2002.

Sterling, L. and Lister, K. Towards Ontological Reconciliation of Agents. Proceedings of the Thirteenth IEEE International Conference on Tools with Artificial Intelligence ICTAI2001, IEEE Computer Society, 2001, pp. 3-10.

Sterling, L., Kazmierczak, E. and Senyard, A. Software Engineering Issues for (Chemical) Engineers. Proceedings of the World Congress Chemical Engineering. Electronic Proceedings.

Lister, K. and Sterling, L.   Agents in a Multi-Cultural World: Towards Ontological Reconciliation. Proceedings of the AI-01, Australian AI Conference, 2001.

Goschnick, S. and Sterling, L. ShadowBoard: An Agent-oriented Model-View-Controller (AoMVC) Architecture for a Digital Self. Proceedings of the 2001 International Workshop for Agent Technologies over Internet Applications (ATIA-2001), Taiwan, 2001.

Gao, X. and Sterling, L. Knowledge-based Information Agents. Kowalczyk, R., Loke, S.W., Reed, N.E. and Williams, G. (eds.), Advances in Artificial Intelligence, PRICAI 2000 Workshop Reader, Springer Lecture Notes in Computer Science, Vol. 2112, 2001, pp. 229-238.

Heinze, C., Pearce, A., Sterling, L., and Goss, S. Designing Perception Modules to Shape Information for BDI Agents. Kowalczyk, R., Loke, S.W., Reed, N.E., Williams, G. (eds.) Advances in Artificial Intelligence, PRICAI 2000 Workshop Reader, Springer Lecture Notes in Computer Science, Vol. 2112, 2001, pp. 239-248.

Lu, H. and Sterling, L. SportsAgents: A Mediator-based Multi-Agent System for Cooperative Information Gathering from the World Wide Web. Proceedings of the Fifth International Conference on Practical Applications of Intelligent Agents and Agent Methodology, Manchester, UK, 2000, pp. 331-334.

Lu, H. and Sterling, L. Intelligent Matchmaking for Information Agents Cooperation on the World Wide Web. Urban, C. (ed.), Proceedings of the Workshop 2000, Agent-Based Simulation, Passau, Germany, 2000, pp. 161-168.

Lu, H. and Sterling, L. Interoperability and Semi-Structured Data in an Open Web-based Agent Information System. Proceedings of the Workshop on Information Systems Engineering, WISE 2000, Hong Kong, 2000, pp. 80-86.

Senyard, A., Dart, P. and Sterling, L. Towards the Software Engineering of Neural Networks: A Maturity Model. Proceedings of the 2000 Australian Software Engineering Conference, IEEE Computer Society Press, 2000, pp. 45-52.

Sterling, L. A Knowledge-Biased Approach to Information Agents. Proceedings of the International Workshop on Information Integration and Web-based Applications and Services (IIWAS-99), Yogyakarta, Indonesia, 1999.

Osborn, J. and Sterling, L. JUSTICE: A Judicial Search Tool Using Intelligent Concept Extraction. Proceedings of the 7th International Conference on Artificial Intelligence and Law, Oslo, 1999, pp. 173-181.

Zini, F. and Sterling, L. On Designing Ontologies for Agents. Meo, M.C. and Vilares-Ferro, M. (eds.), Proceedings of the Apia-GULP Prod-99, Joint Conference on Declarative Programming, L'Aquila, Italy, 1999, pp. 29-42.

Lu, H. and Sterling, L. A Mediator-Based Multi-Agent Architecture for Information Gathering from the Web. Proceedings of the Australian Software Architectures Workshop (ASAW-99), (ed. Grundy, J.), 1999, pp. 109-119.

Gao, X. and Sterling, L. AutoWrapper: Automatic Wrapper Generation for Multiple Online Services, also appeared in Proceedings of the Asia Pacific Web Conference (APWEB-99), Hong Kong, 1999.

Dart, P., Kazmierczak, E., Martelli, M., Mascardi, V., Sterling, L., Subrahmaniam, V. and Zini, F. Combining Logical Agents with Rapid Prototyping for Engineering Distributed Applications. Proceedings of the STEP-99, (eds. Tilley, S. and Verner, J.), IEEE Computer Society Press, 1999, pp. 40-49.

Lu, H., Sterling, L. and Wyatt, A. An Information Agent to Extract Sports Results from the WWW. Proceedings of the Fourth International Conference on Practical Applications of Intelligent Agents and Agent Methodology, (eds. Ndumu, D. and Nwana, H.), London, UK, 1999, pp. 255-266.

Lu, H., Sterling, L., and Wyatt, A. Knowledge Discovery in SportsFinder: An Agent to Extract Sports Results from the Web, Methodologies for Knowledge Discovery and Data Mining. Proceedings of the Third Asia-Pacific Conference, PAKDD-99, (eds. Zhong, N. and Zhou, L.), Springer Lecture Notes in Artificial Intelligence, Volume 1574, 1999, pp. 469-473.

Naish, L., Sterling, L. A Higher Order Reconstruction of Stepwise Enhancement, in Lecture Notes in Computer Science, Leuven, Belgium, 1998, pp. 245-262.

Loke, S.W., Sterling, L., Sonenberg, L. and Kim, H. ARIS: A Shell for Information Agents that Exploit Web Structure. Proceedings of the Third International Conference on Practical Applications of Intelligent Agents and Agent Methodology, London, UK, 1998, pp. 201-220.

Loke, S., Sterling, L., Sonenberg, E., Kim, H. ARIS: A Shell for Information Agents that Exploit Web Site Structure. Proceedings of the Sixth International Conference on the Practical Applications of Prolog, London, UK, 1998, pp. 205-224.

Marling, C.R., Petot, G.J., and Sterling, L. A CBR/RBR Hybrid for Designing Nutritional Menus. Proceedngs of the AAAI Spring Symposium on Multimodal Reasoning, Stanford University, 1998.

Sterling, L. On Finding Needles in WWW Haystacks, in Advanced Topics in AI. Proceedings of the AI-97, 10th Australian Joint Conference in Artificial Intelligence, (Sattar, A. ed.), Springer-Verlag Lecture Notes in Artificial Intelligence, Volume 1342, 1997, pp. 25-36.

Grinton, C., Sonenberg, E. and Sterling, L. Exploring Agent Cooperation, in Advanced Topics in AI. Proceedings of the AI-97, 10th Australian Joint Conference in Artificial Intelligence, (Sattar, A. ed.), Springer-Verlag Lecture Notes in Artificial Intelligence, Volume 1342, 1997, pp. 96-105.

Naish, L. and Sterling, L. A Higher Order Reconstruction of Stepwise Enhancement, A preliminary version appeared in Proceedings of the LOPSTR-97, Pisa, 1997.

Han, Y., Loke, S.W., and Sterling, L. Agents for Citation Finding on the World Wide Web, Proceedings of the 2nd Conference on the Practical Application of Intelligent Agents and Multi-Agent Technology (PAAM '97), Practical Applications Co. Ltd, April 1997, pp. 303-317.

Stern, L. and Sterling, L. Teaching AI Algorithms Using Animations Reinforced by Interactive Exercises, in Proceedings of the Second Australasian Conference on Computer Science Education (ACSE-97), (Hurst, J., ed.), ACM Press, 1997, pp. 78-83.

Sonenberg, E.A. and Sterling, L.S. Embracing IT's Possibilities in Education - a View from Computer Science, Workshop on Doing IT at Melbourne, 1997, pp. 174-180.

Gao, X. and Sterling, L.S. Using Common Sense Knowledge to Guide Learning for Search Agents, Proceedings of the 10th Australian Workshop on Knowledge Acquisition, 1997.

Loke, S.W., Davison, A., and Sterling, L. CiFi: An Intelligent Agent for Citation Finding on the World-Wide Web, Proceedings of the 4th Pacific Rim International Conference on Artificial Intelligence (PRICAI-96), Springer LNAI 1114, 1996, pp. 580-592.

Marling, C.R. and Sterling, L. Designing Nutritional Menus Using Case-Based and Rule-Based Reasoning, Proceedings of the Fourth International Conference on Artificial Intelligence in Design, Stanford USA, Kluwer, 1996 (eds. Gero, J. and Sudweeks, F.), pp. 211-227, 1996.

Quinn, R., Causey, G., Merat, F., Sargent, D., Barendt, N., Newman, W., Velasco, D., Podgurski, A., Jo, J., Sterling, L. and Kim, Y. Design of an Agile Manufacturing Workcell for Light Mechanical Applications, Proceedings of the IEEE Conference on Robotics and Automation, 1996, pp. 858-863.

Marling, C., Petot, G. and Sterling, L. Planning Nutritional Menus Using Case-Based Reasoning, Proceedings of the AAAI Spring Symposium on Artificial Intelligence in Medicine, Stanford, USA, 1996.

Kirschenbaum, M., Michaylov, S. and Sterling, L. Skeletons and Techniques as a Normative View of Developing Logic Programs, Proceedings of the ACSC-96, Australian Computer Science Communications, 18(1), 1996, pp. 516-524.

Nygate, Y. and Sterling, L. Designing and Implementing a Bridge Playing Program, Proceedings of the ACSC-96, Australian Computer Science Communications, 18(1), 1996, pp. 122-130.

Loke, S.W., Davison, A., and Sterling, L. Lightweight Deductive Databases on the World Wide Web, Proceedings of the First Workshop on Logic Programming Tools for Internet Applications, Joint International Conference and Symposium on Logic Programming, 1996, pp. 76-81.

Sterling, L., Loke, S.W., and Davison, A. Software Agents for Retrieving Knowledge from the World Wide Web, in Agents and Web-Based Design Environments Workshop Notes, Fourth Intl. Conference on Artificial Intelligence in Design, 1996, pp. 76-81.

Jain, A., Sterling, L. and Kirschenbaum, M. Towards Reusability Based Upon Similar Computational Behavior, Proceedings of the Seventh International Conference on Software Engineering and Knowledge Engineering, Rockville, USA, 1995.

Lakhotia, A., Sterling, L. and Bojantchev, D. Development of a Prolog Tracer by Stepwise Enhancement, Third Intl. Conference on Practical Applications of Prolog, Paris, France, 1995, pp. 371-393.

Sterling, L. and Turnidge, T.Z. Specifications: Syntactic Sugar for Prolog, Workshop on Software Engineering and Logic Programming, ICLP94, June, 1994.

Nygate, Y. and Sterling, L. ASPEN: A Methodology for Designing Complex Problem Solving Systems, Proceedings of the Israeli Conference on AI, 1993.

Srinivasan, V. and Sterling, L. A Knowledge Based Framework for Developing and Customizing Schedulers, Proceedings of the 8th Knowledge-Based Software Engineering Conf., IEEE Computer Society Press, 1993, pp. 69-78.

Sterling, L. On Merging Prolog Programs, ARO/AFOSR/ONR Workshop on Software Slicing Merging and Integration, Monterrey, 1993, pp. 31-33.

Sterling, L. and Sitt Sen, C. A Tool to Support Stepwise Enhancement in Prolog, Workshop on Logic Programming Environments, Vancouver, Canada, 1993, pp. 21-26.

Sterling, L., Jain, A. and Kirschenbaum, M. Composition Based on Skeletons and Techniques, Workshop on Composing Logic Programs, Vancouver, Canada, 1993.

Schwartz, D.G. and Sterling, L. BlackLog: From Blackboard System to Process-Oriented Prolog, Workshop on Blackboard-based Logic Programming, Budapest, June, 1993.

Srinivasan, V. and Sterling, L. Design and Implementation of Transportation Schedulers, Proceedings of the AI92, World Scientific Press, 1992, pp. 227-232.

Kovacic, K., Sterling, L., Petot, G., Ernst, G. and Yang, N. Towards an Intelligent Nutrition Manager, Proceedings of the ACM/SIGAPP Symposium on Computer Applications, ACM Press, 1992 , pp. 1293-1296.

Schwartz, D. and Sterling, L. Meta-Level Constructs for Concurrency among Loosely-Coupled, Course-Grained Knowledge Sources, JICSLP Workshop on Distributed and Parallel Implementations of Logic Programming Systems, Washington, USA, 1992.

Kirschenbaum, M., Sterling, L. and Jain, A. Relating Logic Programs via Program Maps, also is in 2nd International Conference on Artificial Intelligence and Mathematics, 1992.

Schwartz, D.G., Mayland, E.J. and Sterling, L. The FLiPSiDE Blackboard: A Financial Logic Programming System for Distributed Expertise, in Proceedings of the First

International Conference on Artificial Intelligence Applications on Wall Street, IEEE Computer Society Press, 1991, pp. 64-72.

Kirschenbaum, M. and Sterling, L. Refinement Strategies for Inductive Learning of Simple Prolog Programs, in Proceedings of the 12th International Joint Conference on Artificial Intelligence, Sydney, Australia, Morgan Kaufmann, 1991, pp. 757-763.

Yalçinalp, L.Ü. and Sterling, L. Uncertainty Reasoning in Prolog with Layered Meta-Interpreters in Proceedings of the Seventh Conference on Artificial Intelligence Applications, IEEE Computer Society Press, February, 1991, pp. 398-402.

Sterling, L. and Venkatesh, S. Explaining Constraint Computations, in Proceedings of the AAAI Symposium on Constraint-Based Reasoning, 1991, pp. 257-266.

Yalçinalp, L.Ü. and Sterling, L. Building Embedded Languages and Expert System Shells in Prolog, in Proceedings of the Tools for AI Washington, USA, 1990, pp. 147-159.

Lakhotia, A. and Sterling, L. Program Development by Stepwise Enhancement, in Proceedings of the Second International Conference on Software Engineering, Skokie, USA, 1990.

Power, A.J. and Sterling, L. A Notion of Map Between Logic Programs, in Proceedings of the 7th International Conference on Logic Programming, Warren D. and Szeredi P. (eds.),MIT Press, 1990, pp. 390-404.

Kovach, J., BenDavid, A. and Sterling, L. An Expert Grinding Adviser for the Surface Grinding of Superalloys, in Grinding Fundamentals and Applications, Malkin, S. and Kovach, J. (eds.), ASME conference, California, 1989, pp. 349-356.

Sterling, L. and Yalçinalp, L.Ü. Explaining Prolog Computations Using a Layered Meta-Interpreter, Proceedings of the IJCAI-89, Morgan Kaufmann, Detroit, USA, 1989, pp. 66-71.

Radack, G. and Sterling, L. Describing Objects Using Constraints, Proceedings of the ESD/SMI Expert Systems Conference, Detroit, 1989, pp. 485-496.

Beer, R.D., Chiel, H.J. and Sterling, L. The Design of Heterogeneous Neural Networks for Intelligent Behavior in Dynamic Environments, Proceedings of the Fifth Annual Conference on Aerospace Applications of Artificial Intelligence, Dayton, USA, 1989.

Radack, G and Sterling, L. Describing Geometric Objects Symbolically, Proceedings of the 5th Israeli AI conference, Tel Aviv, Israel, 1988, pp. 31-42.

Bansal, A. and Sterling, L.   Abstract Interpretation of Logic Programs Based on Types, Proceedings of the 2nd International Conference on Fifth Generation Computer Systems, Tokyo, Japan, 1988, pp. 422-429.

Vezina, J. and Sterling, L. A CLIPS Prototype for Autonomous Power Systems Control, Proceedings of the 4th Conference on AI for Space Applications, Huntsville, USA, 1988, pp. 211-220.

Sterling, L. and Lakhotia, A. Composing Prolog Meta-Interpreters, Proceedings of the 5th International Conference on Logic Programming, Bowen, K.A. and Kowalski, R. (eds.), MIT Press, Seattle, USA, 1988, pp. 386-403.

Bansal, A. and Sterling, L. Compiling Enumerate-and-Filter Programs for Efficient Execution under Committed-Choice AND-Parallelism, Proceedings of the 1988 International Conference on Parallel Processing, Illinois, 1988, pp. 22-25.

Discenzo, F., Ernst, G.W., He, X., Ozsoyoglu, Z.M. and Sterling, L. Integration of Expert Systems and database Technologies, Proceedings of the AAAI Workshop on Databases in Large AI Systems, 1988, pp. 71-77.

Bansal, A. and Sterling, L. Source-to-Source Transformation of Sequential Logic Programs to AND-Parallelism, Proceedings of the 1987 International Conference on Parallel Processing, Illinois, USA, 1987, pp. 795-802.

Sterling, L. and Nygate, Y.   PYTHON: An Expert Squeezer, Proceedings of the 4th International Conference on Logic Programming, Lassez, J.L. (ed.), MIT Press, Melbourne, Australia, 1987, pp. 654-674.

BenDavid, A. and Sterling, L. Interfacing Tools for Explaining Expert Systems, in Information Technology: Emerging Opportunities and Challenges, Proceedings of the 2nd Pan Pacific Computer Conference, Singapore, 1987, pp. 179-187.

BenDavid, A., Sterling, L. and Pao,Y.H. Reasoning and Induction in an Ordinal World, in Information Technology: Emerging Opportunities and Challenges, Proceedings of the 2nd Pan Pacific Computer Conference, Singapore, 1987, pp. 188-196.

Sterling, L. and Beer, R.D. Incremental Flavor-Mixing of Meta-Interpreters for Expert System Construction, Proceedings of the 3rd IEEE Symposium on Logic Programming, Salt Lake City, USA, 1986, pp. 20-27.

Sterling, L. Meta-Interpreters: The Flavors of Logic Programming?, Proceedings of the Workshop on Foundations of Logic Programming, Washington, USA, 1986.

Sterling, L. Logical Levels of Problem Solving, also appeared in Proceedings of the 2nd International Logic Programming Conference, Uppsala, Sweden, 1984, pp. 231-242.

Sterling, L. Implementing Problem-Solving Strategies Using the Meta-Level, Proceedings of the 4th Jerusalem Conference on Information Technology, Jerusalem, Israel, 1984, pp. 125-132.

Newspaper/Magazine articles

5 Conversation articles not included

Sterling, Leon. Swinburne University of Technology; 2011. Accelerating the digital re-searcher on the information superhighway, Swinburne Magazine

Sterling, Leon. Borneo Post; 2011. Copyright, consumers, control and consequences.

Also guest blog for Higher Ed Blog on Ruby the robot

Other Publications

Sterling, L., Taveter, K. and the Daedalus Team Experience from Building Industry Strength Agent-Based Appliances, An industry experience report at the Australian Software Engineering Conference (ASWEC-06), Sydney, Australia, April 2006.

Sterling, L. Experiences with Agent-Oriented Software Modelling, Proceedings of the Dagstuhl workshop 060621, Dagstuhl, Germany, 2006.

Padgham, L., Shehory, O. and Sterling, L. Methodologies for agent-oriented software engineering. Proceedings of the 7th European Agent Systems Summer School (EASSS 2005), Utrecht, The Netherlands, 2005.

Cruz, L.P., Annamalai, M. and Sterling, L. Analyzing High Energy Physics Experiments, in Burg, B., Dale, J., Finin, T., Nakashima, H., Padgham, L., Sierra, C. and Willmott, S. (eds), Proceedings of the of the Workshop on AgentCities, Bologna, Italy, 2002.

Annamalai, M., Sterling, L. and Moloney, G. A Collaborative Framework for Distributed Scientific Groups, Proceedings of the Workshop on Ontologies in Agent Systems (OAS 2002), Bologna, Italy, 2002.

Annamalai, M., Sterling, L. and Moloney, G. Adding Semantics to Scientific Collaboration Documents, Poster at International Semantic Web Conference (ISWC 2002), Sardinia, 2002.

Fabens, W. and Sterling, L Generalized scheduling development environment, in Proceedings of the Tools for Artificial Intelligence, IEEE Computer Society Press, 1991, pp. 536-537.

Sterling, L. Mathematical Reasoning, Byte Magazine, October 1987, pp. 177-180

Refereed Video Proceedings

Quinn, R., Causey, G., Merat, F., Sargent, D., Barendt, N., Newman, W., Velasco, D., Podgurski, A., Jo, J., Sterling, L., and Kim, Y., Agile Manufacturing video, 1996 IEEE International Conference on Robotics and Automation.

Consulting Projects

Xperior, Small Start up, 2016-present
   Ran agent-oriented modeling workshop and looked at the possibility of automatic document extraction
Office of the Chief Scientist, 2016
   Feedback on a STEM Report
Brooks, Cushman and Co.
   US patent case
WA Solicitor's Office, 2014 (case settled)
   Legal case commenting on software process
Redflex Systems, 2005
   Verification of Traffic Software
Gilbert and Tobin, 2004
   Expert witness regarding Kazaa software and the mp3s4free.com Web site
Ardmona/SPC, 2003-2005
   Automated Inspection of peaches and pears

Ohio Online, US, 1995
The Scheduling Niche, US, 1995
Quintus Computer Systems, US, 1987
Texas Instruments, US, 1986
IBM Israel, 1984
Hal Robotics, Israel, 1984
Almex Ticket Equipment, UK, 1983

Software Commercialisation

Queue Solutions, 2001-2005

Patents

NEURAL-BASED AUTONOMOUS ROBOTIC SYSTEM (with R.D. Beer and H.J. Chiel) U.S. patent 5,124,918, issued June 23, 1992

Chair, Committee for celebrating 60 years of computing in Victoria, 2016

Professional Committees

❖ Executive Committee, Assoc. Logic Programming, 1992-1996
❖ IFIP Tech Committee TC-12 on Artificial Intelligence, 1991-1998

Invited and Public Talks
❖ Victoria University of Wellington, November, 2017
❖ Raising the Bar Melbourne, November 2016
❖ ACER Research Conference, August, 2016
❖ University of Sydney, June 2016
❖ Victoria University of Wellington, November, 2015
❖ Robots for Rehabilitation, CRE-CP Symposium, Melbourne, July, 2015
❖ Promoting ICT skills development across all disciplines, Improving STEM Education and Skills, Melbourne, February 2015
❖ Panel Speaker, Digital Pervasiveness, Innovations in Learning, Sydney, 2014

- ❖ Agent-Oriented Software Engineering, Mauritius, 2013
- ❖ Public Lecture about Alan Turing, Swinburne Leadership Centre, 2012
- ❖ Keynote Speaker, Agent-Oriented Modelling for Converging Devices and Systems, Conference on IT in Asia, Kuching, Malaysia, 2011
- ❖ Keynote Speaker, Learning Futures Forum, Melbourne, 2010
- ❖ Careers in IT – Victorian IT Teachers Association, Melbourne, 2010
- ❖ ICT Careers Expo, Melbourne, 2010
- ❖ Boys and Technology Conference, Brighton Grammar, 2010
- ❖ Agent Technology Video Seminar, Melbourne-Estonia, 2010, 2011, 2013, 2014.
- ❖ Public Lecture about Donald Knuth, Key Thinkers Series, University of Melbourne, 2009
- ❖ eDiscovery, to law firm in Sydney, 2009.
- ❖ Australian Computer Science Week, Ballarat, 2007.
- ❖ Keynote Speaker, PRICAI'07, Pacific Rim Conference on Artificial Intelligence, Thailand, 2007.
- ❖ International Workshop on Declarative Aspects of Agent Technologies, DALT 2007, Hawaii, May, 2007.
- ❖ Securecon, Melbourne, 2006.
- ❖ Australian Society of Operations Research Workshop, Melbourne, 2004.
- ❖ NZ SE Research Symposium, Auckland, 2004.
- ❖ Griffith University Planning Day, 2004.
- ❖ Monash Cool Campus Workshop, Melbourne, 2003.
- ❖ PRIMA 2000, Fourth Pacific Rim Intl. Conference on Multi-Agent Systems, Melbourne, 2000
- ❖ International Workshop, IIWAS'99, Information Integration and Web Applications and Services, Indonesia, November, 1999
- ❖ Summer School, Software Engineering and Logic Programming, Italy, Sept, 1998
- ❖ Keynote Speaker, AI'97, Australian Artificial Intelligence Conference, Perth, Australia, 1997
- ❖ International Conference on Logic Programming, ICLP94, Italy, June 1994
- ❖ Increasing the Practical Impact of Formal Methods for Computer-Aided Software Development, ARO/AFOSR/ONR Workshop, Monterrey, California, October, 1993
- ❖ Italian Logic Programming Conference, GULP'92, Tremezzo, Italy, June 1992
- ❖ Second Conf on Meta-Programming in Logic, Meta-90, Leuven, Belgium, 1990
- ❖ Fourth Asian School on Computer Science, Thailand, November, 1989
- ❖ Advanced School on Foundations of Logic Programming, Sardinia, Italy, September, 1988

Leadership in Teaching, especially Software Engineering

Australian Computer Society/Engineers Australia Joint Board on Software Engineering

Member, 2001-2005, 2006-2008

Chair, 2002, 2004, 2006-2008, 2012 - present

Academic Coordinator

Software Engineering, 1999-2001 (through Melbourne University Private)
   First undergraduate course run through MUP. Good outcomes for the attendees who were successfully transerred into University of Melbourne when the Adacel Training facility in Wodonga shut down

DSTO Graduate Certificate in Scientific Leadership, 2008-2009 (Through Melbourne Consulting and Custom Programs).

e-Forensics, 2003-2006 (through Melbourne University Private)

Teaching

- ❖ Software Engineering Project: 2003, 2016-8
  Teaching SWEN90013 at the University of Melbourne in 2016-2-18 has seen a major change of the subject to use modern, agile development methods which more closely align with current industry practice.
  Two teaching publications have resulted.
- ❖ Software Engineering Process and Practice: 2000-2002, 2006.
- ❖ Software Engineering Case Studies: 2003.
- ❖ Project Management: 2004, 2005.
- ❖ Intelligent Software Agents: 1996, 1997, 1998, 1999, 2000, 2001, 2003, 2005, 2006.
- ❖ Logic programming and Prolog: 1986-1995, 1999, 2002-2004.
- ❖ Prolog as a Formal Method in Software Engineering: 1994.
- ❖ Artificial Intelligence: 1989-1994, 1996-1998.
- ❖ Analysis of Algorithms: 1988, 1989.
- ❖ Theoretical Computer Science: 1991.
- ❖ Introduction to Programming: 1985, 1991, 1993, 1994.

University Committee Leadership

Chair, Enterprise Innovation and Architecture Forum,

Swinburne University of Technology, 2012 – 2015

Chair, Higher Education IT Advisory Committee,

Swinburne University of Technology, 2010 - 2012

Chair, Teaching and Learning Quality Assurance (TALQAC),

University of Melbourne, 2004-2006

Chair, School of Enterprise Academic Committee, University of Melbourne, 2007-2009

External Departmental Reviews

DST Group, Curtin University of Technology, University of Auckland, University of Tasmania, Victoria University of Wellington, University of Western Australia, University of Mauritius, Griffith University, UHE, Australian Computing Academy

Accreditation activities

Australian Computer Society - 2003, 2004, 2005, 2006, 2007

Engineers Australia - 1999, 2003, 2005, 2006, 2008, 2009, 2011, 2014**, 2018**

NATTS, 1985 in Cleveland

Research Grant Activity

2020-2022   Maturing design-led innovation processes with motivational models (DP200102955) ARC Discovery Grant, (co-CI, with Sonja Pedell), $390,000.

2016–2018   One Size Doesn't Fit all: Incorporating Emotions in Technology Development, ARC Discovery Grant, (Lead CI, with Tim Miller, Sonja Pedell, and Antonette Mendoza), $375,000.

2014-2017   One of team of 12 CIs across Swinburne, ARC Training Centre in BioDevices, Australian Research Council, $1,800,000

2014-2017   M. Kyrios, J. Farhall, D. Austin, S. Rossell, N. Thomas, D. Castle, E. Fossey, G. Murray, C. Mihalopoulos, L. Sterling, and others, Use of online technology to promote self-management and recovery in people with psychosis; Mental Illness Research Fund, $1,900,000

2014-2017   J. Gunn, C. Mihalopoulos, H. Hegarty, A. Williams, L. Sterling, P. Chondros, S. Davidson and others, A randomised trial of a clinical prediction tool for targeting depression care (Target-D); National Health and Medical Research Council, $922,000

2015   L. Sterling, H. Kingsley, A. Scheinberg: Using a NAO robot to help with Paediatric Rehabilitation; Transport Accident Commission, $27,000

2014-2016   S. Leitch, L. Sterling, T. Miller, A. Mendoza and others, Increasing knowledge and motivating collaborative action on Low Carbon Living through team-based and game-based mobile learning; CRC for Low Carbon Living, $450,000

2013-2014   M. Kyrios, L. Sterling, A. Lopez-Lorca, R. Vasa, S.Pedell, J. Abbott, Supportive technology for monitoring sleeping disorders: developing a mobile application for addressing users' needs; Barbara Dicker Brain Sciences Foundation, $15,000

2013-2014   L. Sterling and S.Pedell, Second Generation Personal Alarms, Smart Services CRC, $65,000

2013–2015   Socially-Oriented Requirements engineering - Software Engineering meets Ethnography, ARC Discovery Grant, (Lead CI, with Sonja Pedell and Tim Miller), $306,000.

2008–2011   Socially-Oriented Requirements engineering - Software Engineering meets Ethnography, ARC Discovery Grant, $205,000 (Lead CI, with Frank Vetere and Steve Howard).

2008–2011   Agent-Based Simulation – New Approaches for Design and Prototyping, ARC Linkage Grant with Industry Partner Jeppesen (a Boeing company), (Lead CI, with Kuldar Taveter and Keith Joshi), $108,381.

2007   Intelligence v Performance in Agent-Based Software, University of Melbourne International Research Development Scheme, $7,253.

2006   Advanced Intelligence for Project Management Software, State Government Start Grant program (University of Melbourne share for interaction with industry), $22,000.

2005–2006 Socially-Oriented Requirements Elicitation, Smart Internet Technology CRC, $80,000.

2005 Project Management Software, DITR Industry grant with Invoke, $20,000.

2004 - 2006 Aspects of Agent-Oriented Software engineering Methodology, Melbourne Research Grant Scheme, $85,000

(Three years running, a near miss in ARC Discovery Grant)

2004 – 2006 Towards Invisibly Intelligent Agent Appliances via Experience-based Computing, ARC Linkage grant with Adacel Technologies/Lochard, $226,507.

2004 - 2007 Intelligent Structured Knowledge Source Integration agents to integrate the world wide web with a machine readable ontology, ARC Linkage grant with Cycorp, $90,000 approx.

2003 – 2004 Methodology for Multi-Agent Application Project, Smart Internet Cooperative Research Centre, $151,300.

2003 – 2004 Pedagogical Agents, Melbourne-Monash Protocol (one of 7 PI's), $110,000.

2002 – 2007 Multi-Ontologies meet UML, ARC Discovery Project, folded into PIMCE, my contribution, $300,000 approx.

2002 Grid Problem Solving Environments, Victorian Partnership for Advanced Computing, $115.000.

2001 – 2003 Agents for Online Resources, ARC Linkage Grant with Hearne Scientific Software, $69,000.

2001 Ontologies for Multi-Agent Systems, Melbourne Research Grant scheme, $20,000.

2001 Software Engineering Practices for Agent-based Systems, DSTO, $30,000.

2000 Using XML for Agents, Melbourne IT, $60,000.

2000 – 2001 An e-tutor System, R&D Start Grant with Hearne Scientific Software, $20,000.

1999 – 2001 DCITA through Software Engineering Australia, Rapid Diffusion of Agent Technology – Development of a Model and Delivery of a Roadshow, $119,000.

1999 Agent Interfaces for Customer Management, Melbourne IT, $60,000.

1999 Report on Open Source Intelligence, DSTO, $25,000.

1998 – 1999 Agent-based Software Engineering Resource, DIST through Software Engineering Australia, $50,000.

1998 – 1999 Dynamic Objects, ARC SPIRT Grant with Ericssons, $40,251.

1997 – 1998   Incorporating Semantic Knowledge in Agents for the World Wide Web, ARC Small Grants Scheme, $40,000.

1997 – 1998   Agents in a Learning Environment, Melbourne IT, $90,000.

1997   Study of agent needs (with Agent-Oriented Systems), Land Operations Division, DSTO, $30,000.

1997   An Agent Shell, Adacel, $10,000.

1997   Logic Programming and Software Engineering, University of Melbourne Strategic Planning Fund, $80,000.

1996   Agent Recovery (co-investigator with K. Rao), Cooperative Research Centre on Intelligent Decision Systems, $50,000.

1994 - 1995   Agile Manufacturing (one of five academic staff),Eveready Battery Company and Cleveland Advanced Manufacturing Program - $521,000.

1993 - 1995   Maintenance and Analysis of Structurally Enhanced Programs, National Science Foundation, $120,251.

1992 - 1993   Knowledge-based Management, (co-PI) CMOST - $25,312.

1992   An Object-Oriented Scheduler, Cleveland Advanced Manufacturing Program, $13,920.

1990 - 1992   Stepwise Enhancement: A Methodology for Prolog Programming, National Science Foundation, $114,229.

1990 - 1991   Generalized Scheduling: An Application of Meta-Programming, BP America and Cleveland Advanced Manufacturing Program - $49,964 (This project subsequently attracted $50,000 from Small Business Innovation Research Fund).

1991 - 1992   Blackboard Architectures, Swiss Bank Corporation/O' Connor and Associates, $39,890.

1991   Fellowship for Raiomond Dubash, United Nations Development Program - $7700.

1989   Feature-Based Reasoning about Geometric Dimensioning and Tolerancing, Systran Corporation, for Materials Lab., Wright Patterson Air Force Base, $17,081.

1989 - 1990   A Real-time Architecture for Expert Systems, NASA Lewis Research Center, $20,000.

1988 - 1990   Meta-Interpreters for Expert Systems, National Science Foundation, $149,229.

1988, 1989   Meta-Interpreters for Expert Systems (Research Experiences for Undergraduates - supplement) National Science Foundation, $6,390.

1988- 1989   Power Systems Analysis, NASA Lewis Research Center, $25,000.

1987 - 1988   Incorporating Parallelism in Expert Systems, Cleveland Advanced Manufacturing Program, $32,300.

1987 - 1988   Methods of Applications of AI/Expert Systems Technology, NASA Lewis Research Center, $15,000.

1986 - 1987   Reusable Explanation Shells for Expert Systems, Cleveland Advanced Manufacturing Program, $40,954.

1986   Declarative Prolog Programs, Texas Instruments, $7,340.

1986   Prolog Benchmarks, Texas Instruments, $6,630.

1986   An Explanation Shell, (co-P.I.) Expert Systems International, $5,000.

1985 - 1987   Expert system for grinding, TRW, (MMTC division) and CAMP, $30,000.

Research and Computing Infrastructure

2008   OptiPortal Development, $120,000, Multimedia Victoria (now DIIRD).

2000   Distributed Database Technologies for Terabyte Document Collections (with R. Sacks-Davis, A. Moffat, and J. Zobel), ARC REIF, $165,000.

1998   Business Plan for SEA(Vic.), Multimedia Victoria, $30,000.

1997   Software Engineering Australia, (one of 12 investigators for a large national project) Department of Industry, Science and Tourism, $9,000,000 (Technology Support Centre).

1996   Intelligent Agent Laboratory. University of Melbourne, $80,000.

1991 - 1992   Exploratory Research in Intelligent Systems, Cleveland Advanced Manufacturing Program, $122,000.

1988   Computer Research Equipment (with G. Ozsoyoglu, M. Ozsoyoglu), National Science Foundation, $52,282.

1987   Workstations for Intelligent Systems Research (with Y.H. Pao, K. Loparo), National Science Foundation, $88,243.

Conference Tutorials

- Agent-Oriented Software Engineering (with Taveter, K. and Shehory, O.) AAMAS, Budapest, 2009
- Agent-Oriented Modeling, ISSEC, Canberra, 2009.
- Agent-Oriented Software Engineering (with Taveter, K.), ER, Auckland, 2007
- Agent-Oriented Software Engineering (with Padgham, L.) IAT, Compiegne, 2005
- Agent-Oriented Software Engineering (with Padgham, L. and Shehory, O.) Agent Summer School, Utrecht, 2005
- Agent-Oriented Software Engineering (with Padgham, L.) AAMAS, Utrecht, 2005
- Agent-Oriented Software Engineering (with Juan, T.), ICSE, St. Louis, 2005
- Agent-Oriented Software Engineering (with Juan, T.), IAT, Beijing, 2004
- Agents for Software Engineering (with Durnota, B.), TOOLS-96, Melbourne, 1996
- Prolog for Software Engineering (with Reintjes, P.), Second Intl. Conference on Practical Applications of Prolog, London, 1994
- Prolog Programming for Artificial Intelligence, AI92, Hobart, 1992
- Prolog for Software Engineering (with Deville, Y. and Deransart, P.), 8th ICLP, Paris, 1991
- Logic Programming (with Kornfeld, W.), IJCAI-89, Detroit, 1989
- Logic Programming Techniques (with Hardy, S.), AAAI-88, Minneapolis, 1988
- Prolog Programming for Artificial Intelligence, 4th ILPS, San Francisco, 1987
- Advanced Prolog Programming, 4th ICLP, Melbourne, May, 1987
- Introduction to Logic Programming and Prolog, ACM course, Detroit, April, 1987

Journal Editorship

- International Editorial Review Board Member – International Journal of People Oriented Programming, 2010 - present
- Advisory Board member – Journal of Internet Research, 1998-present
- Editorial Adviser, Computational Intelligence for Finance, 1995-2000
- Area Editor – Programming Methodology and Applications, Journal of Logic Programming, 1991-1998
- Advisory Board Member - Expert Systems: Research and Applications, 1989-1994

Conference Organization

- Programme Chair, Software Engineering Stream, ISSEC 2009, Canberra, 2009
- Programme co-Chair (with 3 others), Cooperative Information Agents, Germany, 2007
- Finance Chair, ASWEC, Melbourne, 2004
- Programme co-Chair (with 3 others), DALT Workshop, Melbourne 2003
- Finance Chair, 2nd International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Melbourne, 2003
- Program co-chair of the Australian Software Engineering Conference, Canberra, 2001
- Programme Chair, International Conference on Logic Programming, Japan, 1995
- Programme Chair, Practical Applications of Prolog, London, April, 1994
- Workshop co-Chair (with P. Ciancarini) Applications of Logic Programming for Software Engineering, post-ICLP'94, Italy, 1994
- Programme co-Chair, AI'92, Australian Artificial Intelligence Conference, Hobart, Nov. 1992
- Poster Chair, International Logic Programming Symposium, San Diego, Nov. 1991
- General Chairman, North American Conference on Logic Programming, Cleveland, October 1989

Conference Programme Committees (partial)

APSEC, 2003-2007, 2010; IC-SOFT 2007, AAMAS04, New York (SPC); ASWEC 2004-2007; Australian Computer Science Conference, 2003-2007; Autonomus Agents and Multi-Agent Systems, Bologna, 2002; Autonomous Agents, Montreal, 2001; Agent-Oriented Software Engineering, Montreal 2001 and Limerick, 2000; Pacific Rim Conference on Multi-Agent Systems, Melbourne, 2000; Practical Applications of Agents, London, 1999 and 2000; International Conference on Multi-Agent Systems, Europe, 1998; Third International Conference on Practical Applications of Agents, London, 1998; Turkish Artificial Intelligence Conference, 1998; AI'97, Australian Artificial Intelligence Conference, Perth, Dec. 1997; Second International Conference on Practical Applications of Agents, London, 1997; International Symposium on Logic Programming, 1997; Fifth International Conference on Practical Applications of Prolog, London, 1997; International Logic Programming Symposium (ILPS), Vancouver, 1993; Third International Conference on Fifth Generation Computing, Tokyo, 1992; Meta-92, Meta-Programming in Logic, Uppsala, Sweden, 1992; Seventh International Conference on Logic Programming, Paris, 1991; SIGPLAN Conf. on Programming Languages Design and Implementation, Montreal, 1991; Tools for AI, Washington, 1991; Meta-90, Meta-Programming in Logic, Leuven, Belgium, 1990; North American Conference on Logic Programming, Cleveland, 1989; Fifth International Conference on Logic Programming (ICLP), Seattle, 1988; Second International Conference on Fifth Generation Computing, Tokyo, 1988; Fourth Symposium on Logic Programming, San Francisco, 1987

Reviewing (partial)

IJAOSE, Computing Reviews, Journal of Parallel Processing, Computational Intelligence, Comm. ACM, IEEE Computer, IEEE Expert, Computer Languages, JLP, VLDB, IJCAI, Logic Programming Symposium, International Conference on Logic Programming, NSF, Canadian Research Foundation, MIT Press, Plenum Publishers, Computer Society Press

Graduate Student Supervision

Completed:

- ❖ James Marshall, Wonderful Design, 2021 (currently in revision)
- ❖ Regina Sirendi, Models for eCommerce (with Tallinn University of Technology), 2018
- ❖ Baby Gobin, Constructing Ontologies, 2015
- ❖ Saeed Araban, PhD, Reusable software, 2012
- ❖ Bin Lu, PhD, Supporting agent-oriented models within the software life cycle, 2012
- ❖ YuXiu Luo, PhD, Quality requirements: An agent-oriented modelling approach, 2012
- ❖ Wai Shiang Cheah, PhD, Pattern based approach for agent-oriented software development, 2010
- ❖ Giannakis Antoniou, PhD, Technologies Avoiding Privacy Incidents in Hostile Environments, 2009
- ❖ Kendall Lister, Towards Semantic InterOperability, PhD, 2009
- ❖ Thomas Juan, ROADMAP methodology for Agent-Oriented Software Engineering, PhD, 2008
- ❖ Nicole Ronald, Agent-based Approaches to Pedestrian Modelling, M. Eng.Sc, 2007
- ❖ Donato Perugini, Agents and Logistics, PhD, 2007
- ❖ Ayodele Oluyomi, Patterns and Protocols for Agent-Oriented Software Development, PhD, 2006
- ❖ Andrew Peel, On Designing a Mobile Robot for Robocup, M.Eng. Sci., 2006

- ❖ Muthukuruppan Annamalai, Modelling Knowledge for Scientific Collaboration on the WWW, PhD, 2005
- ❖ Steven Versteeg, A computational study of the crayfish escape circuit, PhD, 2004
- ❖ Clinton Heinze, Modelling Intention Recognition for Intelligent Agent Systems, PhD, 2003
- ❖ Anthony Senyard, Toward the Software Engineering of Neural Networks, PhD, 2003
- ❖ Maia Hristozova, EXPLODE: Extreme programming for Lightweight Ontology Development, MSc, 2003
- ❖ Steve Goschnick, The ShadowBoard Architecture for Agent-Based Systems, M.Eng. Sci., 2002
- ❖ Hongen Lu, Cooperative Agent-Based Information Extraction, PhD, 2001
- ❖ Sharon Gao, Knowledge-based Information Extraction from the World Wide Web, PhD, 2000
- ❖ Seng Wai Loke, LogicWeb: Integrating the Web with Logic Programming, PhD, 1998
- ❖ Brendan Hills, Kermadec Model for Agent Development, M.A., 1998
- ❖ Stewart Baillie, A Cognitive Model for Agents Searching for Information on the WWW, MSc, 1997
- ❖ Cindy Marling, Integrating Case-based and Rule-Based Reasoning, PhD, 1996
- ❖ Pu Chen, Parallel Logic Programming, PhD, 1995
- ❖ Ashish Jain, Program Maps between Logic Programs, PhD, 1995
- ❖ Kathy Kovacic, Representation of Common-sense Knowledge for Menu Planning, PhD, 1995
- ❖ Yossi Nygate, ASPEN Problem Solving Methodology, PhD, 1994
- ❖ Venkatesh Srinivasan, A Generalized Scheduling Environment, PhD, 1994
- ❖ David Schwartz, Cooperating Heterogeneous Systems – A Blackboard based Meta-Level Approach, PhD, 1993
- ❖ Ümit Yalçinalp, Meta-Programming for Knowledge-Based Systems in Prolog, PhD, 1991
- ❖ Leo Shulman, IAHC, Intelligent Air Hockey Controller, MSc, 1991
- ❖ Martin Marshall, PLINK, A Prolog Program Checker, MSc, 1990
- ❖ James Vezina, ICE: Interruptable Control Expert System, MSc, 1990
- ❖ Randall Beer, Experiments in Computational Neuro-ethology, PhD, 1989
- ❖ Arun Lakhotia, Logic Program Development by Stepwise Enhancement, PhD, 1989
- ❖ Arvind Bansal, Incorporating Parallelism in Logic Programs via Program Transformation, PhD, 1988
- ❖ Arie BenDavid, Qualitative Reasoning about Empirically Modelled Processes, PhD, 1988
- ❖ Nan Yang, An Expert System on Menu Planning, MSc, 1988
- ❖ Marucha Lalee, An Explanation Shell for Expert Systems Based on Meta-Interpreters, MSc, 1986
- ❖ Ümit Yalçinalp, DIJEST: DIagnosing Jaundice Expert SysTem, MSc, 1986
- ❖ Rona Lustig, Hibrid: A Hierarchical Bridge playing program, MSc, 1984
- ❖ Yossi Nygate, An expert squeezer for bridge, MSc, 1984

M.S. Project Students

Dinh Que, 1998	Todd Turnidge, 1994	Scott Carpenter, 1993
Ted Friedman, 1993	Peter Johnson, 1990	Mansoor Khan, 1990
Kirsten McLeod, 2019	Siyu Bian, 2020	

Honours Students

Arash Arian, 2006	Zhe Liu, 2006	Leslie Gondor, 2004
Mohammed Jassim, 2004	Gillian Tee, 2004	Adrian Pellas-Rice, 2002
Dominic Hou, 2001	Andrea Tan, 2000	James Osborn, 1998
Alex Wyatt, 1997	Chris Grinton, 1996	Hoon Kim, 1996
Terence Wong, 1996	Sitt Sen Chok, 1992	