

Prof. Chrysanthos Dellarocas

Robert H. Smith School of Business
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Education

- 1992-1996 Massachusetts Institute of Technology, U.S.A.
Doctor of Philosophy (Ph.D.) in Electrical Engineering and Computer Science.
Graduated in February 1996.
- 1989-1991 Massachusetts Institute of Technology, U.S.A.
Masters of Science in Electrical Engineering and Computer Science, June 1991.
Graduated with a perfect GPA of 5.0/5.0
- 1984-1989 National Technical University of Athens, Greece.
Diploma in Electrical Engineering, June 1989.
Graduated 1st in class of 300 students. GPA: 9.78/10

Academic Experience

- 2004-present Assistant Professor of Information Systems.
R. H. Smith School of Business, University of Maryland.
- 2002-2004 Associate Professor of Management.
Sloan School of Management, Massachusetts Institute of Technology.
- 2001-2002 Visiting Associate Professor of Information Systems.
Stern School of Business, New York University.
- 1998-2001 Douglas Drane Career Development Assistant Professor of Management.
Sloan School of Management, Massachusetts Institute of Technology.
- 1996-1998 Assistant Professor of Management.
Sloan School of Management, Massachusetts Institute of Technology.
- 1992-1996 Research Assistant.
Center for Coordination Science, Massachusetts Institute of Technology.

1989-1991 Research Assistant.
Laboratory for Computer Science, Massachusetts Institute of Technology.

Other Professional Experience

1997-2001 Co-founder and Technology Officer, Phios Corporation, Cambridge, MA.
Phios corporation is a high technology startup company whose mission is to develop innovative tools for business process management.

1994 Consultant, Perot Systems Corporation, Dallas, Texas.
Provided business process modeling and methodology support for improving the firm's internal knowledge management processes.

1993 Associate, McKinsey and Company, Zurich, Switzerland
Participated in strategic consulting projects at Swissair and Swiss Bank Corporation.

1991-1992 Consultant, Andersen Consulting, Athens, Greece
Participated in three substantial information technology projects at Alpha Credit Bank, Greek Internal Revenue Service and Greek Bank of Industrial Development (ETBA).

1985-1989 Consultant, Computer Center of the Ministry of Social Services (KHYKY), Athens, Greece
Trained applications development team in UNIX and C; provided technical support during first two years of team's existence

Awards, Grants, and Distinctions

2002 NSF Award #0209136
Proposal title: Interdisciplinary Workshop on Reputation Mechanisms in Online Communities.

2000-2001 MIT Center for eBusiness Vision Fund Award
Proposal Title: The Design of Reliable Reputation Reporting Systems for Online Trading Communities.
Award amount: \$70,000. Award duration: 12 months.

1999-2005 NSF CAREER Award #9984147
Proposal Title: Contractual Agent Societies: Negotiated Shared Context and Social Control in Heterogeneous Multi-Agent Systems.
Award amount: \$320,000. Award duration: 48 months.

1998-2002 Defense Advanced Research Programs Agency (DARPA)
Control of Agent Based Systems Program. Award #F30602-98-2-0099
Proposal Title: An Exception Handling Infrastructure for Software Agent Systems.
Award value: \$1,574,820. Award duration: 42 months.

1998-2001 Douglas Drane Career Development Chair.
Sloan School of Management.

1989-1991 Bodossakis Foundation Scholarship.

- 1989-1991 Starr Foundation Scholarship.
- 1986 Goethe Institute Annual Scholarship (top scorer of *Deutsch als Fremdsprache* German language examination in entire Greece.)
- 1985 Greek Technical Chamber Award.
- 1984-1989 Greek National Scholarship Foundation Award.

Publications

Published Journal Articles

- The Firm's Management of Social Effects. *Marketing Letters*, forthcoming (with D. Godes, D. Mayzlin, Y. Chen, S. Das, B. Pfeiffer, B. Libai, S. Sen, M. Shi and P.W.J. Verlegh).
- Reputation Mechanism Design in Online Trading Environments with Pure Moral Hazard. *Information Systems Research* 16 (2), June 2005, 209-230.
- The Digitization of Word-of-Mouth: Promise and Challenges of Online Reputation Systems. *Management Science* 49 (10), October 2003, 1407-1424.
- Using Domain-Independent Exception Handling Services to Enable Robust Open Multi-Agent Systems: The Case of Agent Death. *Journal of Autonomous Agents and Multi-Agent Systems* 7 (1-2), July/September 2003 (with M. Klein, J.A. Rodriguez-Aguilar).
- A Knowledge-Based Approach to Handling Exceptions in Workflow Systems, *Computer Supported Collaborative Work (CSCW)*, August 2000 (with M. Klein).
- A Knowledge-Based Approach for Handling Exceptions in Business Processes. *Information Technology and Management*, Vol. 1, 3, January 2000, pages 155-169 (with M. Klein).
- Tools for inventing organizations: Toward a handbook of organizational processes. *Management Science*, Vol. 45, 3, March 1999, pages 425-43 (with T. W. Malone, K. Crowston, J. Lee, B. Pentland, G. Wyner, J. Quimby, C. S. Osborn, A. Bernstein, G. Herman, M. Klein, and E. O. Donnell).
- Algorithms for Search Trees on Message-Passing Architectures. *IEEE Transactions on Parallel and Distributed Systems*, Vol. 7, 2, February 1996 (with A. Colbrook, E. A. Brewer and W. E. Weihl).
- Software Tools for a Process Handbook (with A. Bernstein, T. W. Malone and J. Quimby). *IEEE Bulletin of the Technical Committee on Data Engineering*, Vol. 18, 1, March 1995, pages 41-48.
- Portable software for multiprocessor systems. *Computing and Control Engineering Journal*, November 1992, pages 275-281 (with A. Colbrook, W. Weihl, E. Brewer, W. Hsieh, A. Joseph, C. Waldspurger and P. Wang).

Working Papers and Journal Articles Currently Under Review

- Online Reputation and Litigation as Mechanisms for Quality Assurance: Strategic Implications for Profits and Efficiency (with Y. Bakos). Under third round of review at *Management Science*.
- Strategic Manipulation of Internet Opinion Forums: Implications for Consumers and Firms. Under second round of review at *Management Science*.
- How Often Should Reputation Systems Update a Trader's Reputation Profile? Under second round of review at *Information Systems Research*.
- Using Online Ratings as a Proxy of Word-of-Mouth in Motion Picture Revenue Forecasting. Under first round of review at *Journal of Marketing*.

Self-Interest, Reciprocity and Participation in Online Reputation Mechanisms. Working paper (not yet submitted).

Simultaneous Auctions of Imperfect Substitute Goods by Sellers of Different Reputations. Working paper (not submitted to any journal yet).

What motivates people to review a product online? A study of the product-specific antecedents of online movie ratings. Working paper (not submitted to any journal yet).

Refereed Conference Articles

Exploring the Value of Online Reviews to Organizations: Implications for Revenue Forecasting and Planning (with N. Awad Farag, M. Zhang) *Proceedings of the 25rd International Conference on Information Systems (ICIS)*, December 2004, Washington, DC (15% acceptance ratio).

Efficiency through Feedback-contingent Fees and Rewards in Auction Marketplaces with Adverse Selection and Moral Hazard. *Proceedings of the 4th ACM Conference on Electronic Commerce*, June 9-12, 2003, San Diego, CA, USA (19% acceptance ratio).

Cooperation without Enforcement? A Comparative Analysis of Litigation and Online Reputation as Quality Assurance Mechanisms (with Y. Bakos). *Proceedings of the 23rd International Conference on Information Systems (ICIS)*, December 2002, Barcelona, Spain (19% acceptance ratio).

A knowledge-based methodology for designing robust multi-agent systems (with M. Klein, J.A. Rodriguez-Aguilar). *First International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, Bologna, Italy, July 2002, page 661. (18% acceptance ratio).

Analyzing the economic efficiency of eBay-like online reputation reporting mechanisms. *Proceedings of the 3rd ACM Conference on Electronic Commerce*, Tampa, FL, October 14-16, 2001 (22% acceptance ratio).

Mechanisms for coping with unfair ratings and discriminatory behavior in online reputation reporting systems. *Proceedings of the 21st International Conference on Information Systems (ICIS)*, Brisbane, Australia, December 2000 (15% acceptance ratio).

Immunizing online reputation reporting systems against unfair ratings and discriminatory behavior. *Proceedings of the 2nd ACM Conference on Electronic Commerce*, Minneapolis, MN, October 17-20, 2000 (19% acceptance ratio).

An exception-handling architecture for open electronic marketplaces of contract net software agents (with M. Klein, J.A. Rodriguez-Aguilar). *Proceedings of the 2nd ACM Conference on Electronic Commerce*, Minneapolis, MN, October 17-20, 2000 (19% acceptance ratio).

An Experimental Evaluation of Domain-Independent Fault Handling Services in Open Multi-Agent Systems (with M. Klein). *Proceedings of the 4th International Conference on Multi-Agent Systems (ICMAS-2000)*, July 2000, Boston, MA (20% acceptance ratio).

Designing robust, open electronic marketplaces of contract net agents (with M.Klein). *Proceedings of the 20th International Conference on Information Systems (ICIS)*, Charlotte, NC, December, 1999 (21% acceptance ratio).

Exception Handling in Agent Systems (with M.Klein). *Proceedings of the Third International Conference on Autonomous Agents (Agents '99)*, Seattle, Washington, May 1-5, 1999, pages 62-68 (29% acceptance ratio).

A Knowledge-Based Approach for Handling Exceptions in Business Processes (with M. Klein). *Proceedings of the 8th Workshop on Information Technologies and Systems (WITS'98)*, Helsinki, Finland, December 12-13, 1998 (**Best Paper Nominee**).

- The SYNTHESIS Environment for Component-Based Software Development. *Proceedings of the 8th International Workshop on Software Technology and Engineering Practice (STEP97)*, London, UK, July 14-18, 1997.
- A Coordination Perspective on Software System Design. *Proceedings of the 9th International Conference on Software Engineering and Knowledge Engineering (SEKE97)*, Madrid, Spain, June 17-20, 1997, pages 569-578.
- Towards A Design Handbook for Integrating Software Components. *Proceedings of the 5th International Symposium on Assessment of Software Tools (SAST97)*, Pittsburgh, PA, June 2-5, 1997, pages 3-13.
- PRELUDE: A System for Portable Parallel Software (with W. Weihl, E. Brewer, A. Colbrook, W. Hsieh, A. Joseph, C. Waldspurger and P. Wang). *Proceedings of 4th International PARLE Conference (Parallel Architectures and Languages Europe)*, Paris, France, June 15-18, 1992, pages 971-972. Published as Springer Verlag Lecture Notes in Computer Science 605.
- Proteus: A High-Performance Parallel-Architecture Simulator (with E. Brewer, A. Colbrook, W. Weihl). *Proceedings of the 1992 ACM SIGMETRICS and PERFORMANCE 92 International Conference on Measurement and Modeling of Computer Systems*, June 1-5 1992, Newport, Rhode Island, USA, pages 247-248.
- An Algorithm for Concurrent Search Trees (with A. Colbrook, E. Brewer and W. Weihl). *Proceedings of the 1991 International Conference on Parallel Processing*, August 12-16, 1991, University Park, PA. Vol. 3, pages 138-141.

Books and Book Chapters

- Reputation Mechanisms. *Handbook on Information Systems and Economics*, T. Hendershott (ed.), Elsevier Publishing, forthcoming 2006.
- Online Reputation Mechanisms. Chapter 20 in *The Practical Handbook of Internet Computing*. M. Singh (Ed.) Chapman & Hall/CRC, 2004.
- Building Trust On-Line: The Design of Robust Reputation Mechanisms for Online Trading Communities. *Information Society or Information Economy? A combined perspective on the digital era*, Doukidis, G., Mylonopoulos, N. and Pouloudi, N. (Eds.), Idea Book Publishing 2004, pp. 95-113.
- Toward a Design Handbook for Integrating Software Components. *Organizing Business Knowledge: The MIT Process Handbook*, Malone, T. W., Crowston, K., and Herman, G.A. (Eds.), MIT Press, 2003, pp. 109-128.
- A Coordination Perspective on Software Architecture. *Organizing Business Knowledge: The MIT Process Handbook*, Malone, T. W., Crowston, K., and Herman, G.A. (Eds.), MIT Press, 2003, pp. 291-332.
- Designing Robust Business Processes (with M. Klein). *Organizing Business Knowledge: The MIT Process Handbook*, Malone, T. W., Crowston, K., and Herman, G.A. (Eds.), MIT Press, 2003, pp. 423-440.
- A Coordination Perspective on Software System Design. *Organizing Business Knowledge: The MIT Process Handbook*, Malone, T. W., Crowston, K., and Herman, G.A. (Eds.), MIT Press, 2003, pp. 497-515.
- Goodwill Hunting: An Economically Efficient Online Feedback Mechanism for Environments with Variable Product Quality. *Agent-Mediated Electronic Commerce IV. Designing Mechanisms and Systems*, Padget, J., Shehory, O., Parkes, D., Sadeh, N., and Walsh, W. E. (Eds.) Lecture Notes in Computer Science 2351, Springer Verlag, pp. 238-252.
- Chrysanthos Dellarocas and Rosaria Conte (editors). *Social Order in Multiagent Systems*. Kluwer Academic Publishers, Boston, July 2001.
- A Knowledge-Based Approach for Designing Robust Business Processes (with M. Klein). *Business Process Management: Models, Techniques, and Empirical Studies*, Wil van der Aalst, Jorg Desel, Andreas Oberweis (editors), Lecture Notes in Computer Science 1806, Springer-Verlag, pages 50-65.

Chrysanthos Dellarocas, Ioannis Cavouras, Christos Halkiopoulos. *The UNIX Operating System and the C Programming Language*. Greek Computer Society Press, Athens, Greece, 1986 (in Greek).

Chrysanthos Dellarocas, George Papakonstantinou, Panayiotis Tsanakas. *The EMPIX Operating System*. Athens, Greece, 1990 (in Greek).

Workshop Papers

Reciprocity, Free Riding and Participation in Online Reputation Systems (with M. Fang, C. Wood) *Workshop on Information Systems and Economics (WISE)*, Seattle, WA, December 2003.

Contractual Agent Societies: Negotiated shared context and social control in open multi-agent systems. *Workshop on Norms and Institutions in Multi-Agent Systems, 4th International Conference on Multi-Agent Systems (Agents-2000)*, Barcelona, Spain, June 2000.

Civil Agent Societies: Tools for inventing open agent-mediated electronic marketplaces (with M. Klein). *Proceedings of the Workshop in Agent-Mediated Electronic Commerce (co-located with IJCAI'99)*, Stockholm, Sweden, July 1999.

An Architecture for Constructing Self-Evolving Software Systems (with M. Klein, H. Shrobe). *Proceedings of the 3rd International Software Architecture Workshop*, Orlando, Florida, November 1-2, 1998.

Toward Exception Handling Infrastructures in Component-based Software. *Proceedings of the International Workshop on Component-based Software Engineering, 20th International Conference on Software Engineering (ICSE)*, Kyoto, Japan, April 25-26, 1998.

Software Component Interconnection Should Be Treated as a Distinct Design Problem. *Proceedings of the 8th Annual Workshop on Software Reuse (WISR)*, Columbus, Ohio, March 23-26, 1997.

Using a Process Handbook to Design Organizational Processes (with J. Lee, T. W. Malone, K. Crowston and B. Pentland). *Proceedings of the AAAI 1994 Spring Symposium on Computational Organization Design*, Stanford, California, March 21-23, 1994, pages 50-56. Published by the AAAI Press as Technical Report SS-94-07.

Patents

Computer system and computer implemented process for representing software system descriptions and for generating executable computer programs and computer system configurations from software system descriptions (with Malone, T.W.). US Patent No. 6,370,681 (April 9, 2002). Canadian Patent No. 2,249,386 (June 27, 2003).

A computerized handbook of processes (with Malone, T.W., Crowston, K., Lee, J., and Pentland, B.). US Patent No. 6,070,163 (May 30, 2000) and European Patent No. 0692113 (October 14, 1998).

Computer system for displaying representations of processes (with Malone, T.W., Crowston, K., Lee, J., and Pentland, B.). US Patent No. 5,819,270 (October 6, 1998).

Media Quotes

Television

Interview with Technology Anchor Erica Hill, CNN Headline News, June 30, 2003.

Press

More Companies Pay Heed to Their 'Word of Mouse' Reputation. *The New York Times*, June 23, 2003.

Making and breaking sales through 'word of mouse' *International Herald Tribune*, June 24, 2003.

Ex-Mormon Web site widens with views, questions of faith. *The Salt Lake Tribune*, June 28, 2003.

Online Reputation Systems. *Esther Dyson's Release 1.0*, 21 (9), October 23, 2003.

Online amateur movie reviews predict box office success. *NetworkWorldFusion*, June 7, 2004.

Move Over, Jeffrey Lyons: On-Line Movie Ratings Accurately Predict Box Office Success. *TMC.net*, June 4, 2004.

Inside Move: MIT prof proffers new B.O. predictor Yahoo! being touted as way to forecast grosses. *Variety*, June 20, 2004.

Better Than Two Thumbs Up. *CIO Magazine*, September 15, 2004.

Do Film Critics Still Matter? Associated Press article widely circulated on CNN, MSNBC and hundreds of newspapers in the U.S.A., October 26, 2004.

The Moviegoer: What social scientists and economists can tell us about our cinematic preferences. *Slate*, June 16, 2005.

Books

Howard Rheingold. *Smart Mobs. The Next Social Revolution.* (Chapter 5) Perseus Publishing. October 2002.

Courses Taught and Developed

Strategic Information Systems.

Case-based core IT course for first-year U. Maryland MBA students.

Data Management Systems.

Full-semester U. Maryland MBA elective course on database management systems.

Advanced Business Technologies for Business Applications.

Elective course taught at NYU Stern School of Business, Fall 2001.

Information Systems: From Technology Infrastructure to the Networked Corporation.

Core IT course for MIT Sloan first-year MBA students.

Information Technology I.

Undergraduate course presenting a broad coverage of technology concepts underlying modern computing and information management.

Business Technologies.

MBA elective course covering the current and emerging technologies that enable electronic business processes.

Executive Education

Aligning Information Technology and Business Strategy (5-day course.)

Special Sloan Executive Seminar for the Young Presidents Organization (international organization of young Chief Executive Officers). Taught in January 1999 and January 2000.

Developing an Internet Business Strategy (2-day course.)

Taught in January 2000.

Digital Economy and eBusiness (3-day course.)

Taught at the Athens University of Economics and Business in December 1999.

Managing the IT Infrastructure for Global Competitiveness (5-day course.)

Taught twice in May 1998 and May 1999.

IT for non-IT Executives (2-day course.)

Taught in June 1998.

Editorial and Review Activities

Editor

Social Order in Multiagent Systems. Book published by Kluwer Academic Publishers, Boston, July 2001

Special issue on Adaptive Workflow Systems, Journal of Computer Supported Cooperative Work (with Mark Klein, Abraham Bernstein)

Editorial Board Member

Associate Editor, Management Science, 2005-today

Associate Editor, Electronic Commerce Research, 2001-2002

Panel Member (Grant Proposal Reviewer)

NSF Division of Information and Intelligent Systems

Swiss National Science Foundation

United States-Israeli Binational Science Foundation (BSF)

Conference Chair

3rd ACM Conference on Electronic Commerce, Tampa, FL, October 2001 (tutorials chair)

First International Joint Conference on Autonomous Agents and Multi-Agent Systems, Bologna, Italy, July 2002 (tutorials chair)

Workshop Chair

Workshop on Information Systems and Economics (WISE), December 2004, Washington, DC, USA.

1st Interdisciplinary Symposium on Reputation Mechanisms in Online Communities (April 2003), Cambridge, MA, USA.

1st Workshop on Norms and Institutions in Multi-Agent Systems, Autonomous Agents Conference (Agents 2000), Barcelona, Spain

2nd Workshop on Norms and Institutions in Multi-Agent Systems, Autonomous Agents Conference (Agents 2001), Montreal, Canada

Workshop on Adaptive Workflow Systems, Conference on Computer-Supported Collaborative Work (CSCW'98), Seattle, Washington, USA;

International Workshop on Component-Based Software Engineering, Kyoto, International Conference on Software Engineering (ICSE97), Kyoto, Japan

Program Committee Member

ACM Conference on Electronic Commerce 2004, 2006

INFORMS Conference on Information Systems and Technology (CIST) 2005

Workshop on Peer-to-Peer Systems and Economics 2005

First Interdisciplinary Workshop on Statistical Challenges in E-Commerce (Steering Committee Member)
2005

International World Wide Web Conference 2003

International Conference on Information Systems (ICIS) 2001, 2002

Workshop on Information Technology and Systems (WITS) 2003, 2000, 1999

Autonomous Agents Conference (Agents) 2001

International Conference on the Design of Cooperative Systems (COOP) 2000

International Conference on Software Engineering and Knowledge Engineering (SEKE) 1999, 1998

Referee

Management Science

Information Systems Research

MIS Quarterly

Communications of the ACM

European Journal of Operations Research

IEEE Transactions on Data and Knowledge Engineering

IEEE Transactions on Systems, Man and Cybernetics

IEEE Transactions on Internet Technology

Journal of Autonomous Agents and Multiagent Systems

Electronic Commerce Research

Computer Supported Cooperative Work

Journal of Engineering Valuation and Cost Analysis

Journal of Information Technology and Management

Software Practice and Experience

Professional Associations

Association for Computer Machinery (ACM)

Association for Information Systems (AIS)

American Economics Association (AEA)

Personal

Born February 1, 1967.

E.U. and Swiss citizenships. U.S. Permanent Resident.

Married. No children.

Fluent in English, Greek. Excellent knowledge of Spanish, French. Good knowledge of German, Portuguese.