

Curriculum Vita for GRAHAM GAL

Department of Accounting
Isenberg School of Management
University of Massachusetts
Amherst, Massachusetts 01003
office phone (413) 545-5649
e-mail: gfgal@isenberg.umass.edu
ORCID - 0000-0001-6526-9367

EDUCATIONAL BACKGROUND

Michigan State University

Degree: Ph.D. 1985
Major: Accounting Information Systems
Minors: Statistics, Cognitive Psychology, Computer Science
Dissertation: "Using Auditor Knowledge to Formulate Data Model Constraints: An Expert System for Internal Control Evaluation."

University of Michigan

Degree: B.A. 1975
Major: Economics (Economic Development)

Continuing Education

Operating Systems NCR Education Center Atlanta, Georgia
COBOL Compilers NCR Education Center Atlanta, Georgia
EDP Audit Symposium University of Massachusetts
Java – Sun Microsystems Albany, NY
Net.Commerce – IBM Training New York, NY
DB2 – IBM Training Atlanta, GA

PROFESSIONAL EXPERIENCE

Department of Accounting
Isenberg School of Management
University of Massachusetts at Amherst
January 1985 to present.
Promoted to Associated Professor January 1992
Courses Taught:
Accounting Information Systems (Undergrad and Grad)
Systems Analysis and Design (Undergrad)
Database Design (Grad)
Expert Systems (Grad)
Visual Basic (Undergrad and Grad)
Business Ontologies (Honors)

Visiting Professor

School of Business
Trakya University
Erdine, Turkey
June-July 2024

School of Business
Lonzhou University
Lonzhou China
Winter 2019, Winter 2020, Spring 2022
Courses Taught
 Financial Management (Grad)
 Financial Accounting (Grad)

Department of Accounting
Istanbul University
Istanbul, Turkey
October 2015-December 2015
Courses Taught
 Accounting Information Systems (Undergrad)

Department of Accounting
School of Business
Western New England College
Springfield, MA
Adjunct Professor - Summer 2009
Courses Taught
 Forensic Accounting (Grad)

RSA Security
174 Middlesex Turnpike
Bedford, MA 01760
Sabbatical in IT Security Department January – August 2004

Department of Accounting
Michigan State University
Graduate Assistant to Professor William E. McCarthy

Ten Thousand Flowers Inc.
Ann Arbor, Michigan
Vice President for Finance and Systems Development
June 1979 to September 1980

Tokyo Shapiro Inc.
Cleveland, Ohio
EDP Supervisor
October 1975 to May 1978

PROFESSIONAL ORGANIZATIONS

American Accounting Association

Member since 1981

Section memberships:

- Accounting Information Systems (was IS/MAS)
- Auditing
- Emerging Technologies
- Forensic Accounting

Positions Held

- Secretary Forensic Accounting Section
- President IS/MAS Section
- Secretary/Treasurer Emerging Technologies Section
- Vice President Emerging Technologies Section
- President Emerging Technologies Section
- AAA Council Member
- Notable Contributions to the Accounting Literature award committee

Accounting Blockchain Coalition

Academic member since 2017

Outreach committee – Chair 2019

Internal controls for blockchain applications – Co-chair working group

AuditChain – Organization to develop blockchain auditing.

Academic Consultant since 2019

Information Systems Audit and Control Association

- Faculty Advocate since 2002
- Academic Programs Committee
- Model Curriculum Review Committee
- NE Chapter member

Association for Computing Machinery

Member since 1981

Special Interest Groups:

- Management of Data (SIGMOD)
- Business Data Processing (SIGBDP)
- Security, Audit, and Control (SIGSAC)
- Artificial Intelligence (SIGART)

Association for Information Systems

Member Since 1990

Special Interest Groups

- New England Chapter
- Accounting Information Systems
- Human-Computer Interaction
- Information Security and Privacy
- Ontology Driven IS

Continuous Auditing and Reporting Laboratory (CARLAB)

Member of the Advisory Board

ACADEMIC AWARDS AND FELLOWSHIPS

Outstanding Reviewer – Information Systems Section
Distinguished Service Award – Strategic and Emerging Technologies Section
ISACA – Contributor to Academic Knowledge 2011
Team Based Learning Fellow – University of Massachusetts 2010
Michigan State University Academic Fellowship 1981, 1982, 1983, 1984
Society for Information Management Doctoral Fellow 1983
American Institute of Certified Public Accountants Doctoral Dissertation Fellowship 1984

PUBLICATIONS

Refereed Journal Articles and Research Monographs

“REA for Dummies: A Beginner’s Guide to One of the Most Important and Perplexing Innovations in Accounting”, *Journal of Emerging Technologies in Accounting*, 2026, with Michael Alles.

“Does Customers’ Support Provide Value for Socially Responsible Firms?” *Sustainability* 2026, with Orhan Akisik.

“Financial Globalization, Global Accounting Standards, and Economic Growth,” *International Review of Economics and Finance*, October 2025 with Orhan Akisik and Silvia Triani.

“IFRS, Financial Development and Income Inequality: An Empirical Study Using Mediation Analysis”, *Economic Systems*, 2023 47(2) with Orhan Akisik.

The REA Accounting Model as an Accounting and Economic Ontology. Research monograph American Accounting Association: Sarasota, 2022 With William E. McCarthy and Guido L. Geerts.

“Metaphysics of Internal Controls.” In H. Weigand, T. Prince Sales, & P. Johanesson (Eds.), Proceedings of the 16th International Workshop on Value Modelling and Business Ontologies (VMBO 2022), held in conjunction with the 34th International Conference on Advanced Information Systems Engineering (CAiSE 2022), June 06–10, 2022, Leuven, Belgium (CEUR Workshop Proceedings; Vol. 3155).

“Inferences: Derivatives and Integrals.” In H. Weigand, T. Prince Sales, & P. Johanesson (Eds.), Proceedings of the 16th International Workshop on Value Modelling and Business Ontologies (VMBO 2022), held in conjunction with the 34th International Conference on Advanced Information Systems Engineering (CAiSE 2022), June 06–10, 2022, Leuven, Belgium (CEUR Workshop Proceedings; Vol. 3155).

“The External Financial Statement Audit Process and Blockchain Technology, *TIDE Academic Research*, 2021 3(1), 103-140, with Matthew Sherwood.

“A Case Study in the Implementation of a Continuous Monitoring System,” *Journal of Emerging Technologies in Accounting*, 2021,18(1), 17-25 with Durmuş Acar, Mahmut Sami Öztürk, and Hayrettin Usul.

“Ontology-Driven Audit Using the REA Ontology”, in *Lecture Notes in Business Information Processing, Advanced Information Systems Engineering Workshops*, CAiSE 2021, 109-120, Polyvyanyy, A & Rinderle-MA, S. (eds) with Marie Snoeck and Wim Laurier.

"IFRS, FDI, Economic Growth and Human Development: The Experience of Anglophone and Francophone African Countries," *Emerging Markets Review* 2020 45 article #100725 with Orhan Akisik and Mzamo Mangaliso.

"Public Budgetary Roles in Iran: Perceptions and Consequences" *Qualitative Research in Accounting and Management* 2020 18(1) 148-168 with Farzaneh Jalali Aliabadi and Bita Mashayekhi.

"Editor's Introduction to the Special Issue on Cloud Computing in Accounting Information Systems," *Journal of Accounting Information Systems* 2020 34(2) 1-4 with Pamela Schmidt.

"The Impact of Internal Control and Integrated Reports on Market Value" *Corporate Social Responsibility and Environmental Management* 2020 27(3) 1227-1240 with Orhan Akisik.

"The Metaphysics of Internal Controls," Lecture Notes in Computer Science, VMBO 2019, Volume-2383

"Integrated Reports, External Assurance and Financial Performance: An Empirical Analysis on North American Firms" *Sustainability Accounting, Management and Policy Journal* 2019 11(2) 317-350 with Orhan Akisik.

"Budget Preparers Perceptions and Performance Based Budgeting Implementation: The Case of Iranian Public Universities and Research Institutes" *Journal of Public Budgeting, Accounting & Financial Management*, 2019 31(1) 137-156 with Farzaneh Jalali Aliabadi and Bita Mashayekhi.

"The Influence of a Good Relationship between the Internal Audit and Information Security Functions on Information Security Outcomes," *Accounting, Organizations, and Society* 2018 71(1), 15-29 with Paul J. Steinbart, Robyn Raschke, and William Dilla.

"The Role of Accounting and Professional Associations in IT Security Auditing: An AMCIS Panel Report," *Communications of the Association for Information Systems* 2018, 43(1), 482-493 with Thomas F. Stafford, Robin Poston, Robert E. Crossler, Randi Jiang and Robin Lyons.

"The Impact of Corporate Social Responsibility and Internal Controls on Stakeholders' View of the Firm and Financial Performance." *Sustainability Accounting, Management, and Policy Journal*. 2017 8(3) 246-280, with Orhan Akisik.

"SECURQUAL: An Instrument for Evaluating the Effectiveness of Enterprise Information Security Programs." *Journal of Information Systems*. 2016 30(1) 71-92. With Paul J. Steinbart, Robyn Raschke, and William Dilla.

"Data Modeling and the Audit." *International Journal of Auditing Technology* 2015 2 (4): 316-332.

"The Influence of Internal Audit on Information Security Effectiveness: Perceptions of Internal Auditors." *SSRN*. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2685943. 2015 With Paul J. Steinbart, Robyn Raschke, and William Dilla.

"Financial Performance and Reviews of Corporate Social Responsibility Reports." *Journal of Management Control* 2014 25 (3-4): 259-288. With Orhan Akisik.

"Internal Audit's Contribution to the Effectiveness of Information Security: Perceptions of Internal Audit." *ISACA Journal* 2014 3: 1-5. With Paul J. Steinbart, Robyn Raschke, and William Dilla.

"Internal Audit's Contribution to the Effectiveness of Information Security: Perceptions of Information Security Professionals." *ISACA Journal* 2014 2: 1-6. With Paul J. Steinbart, Robyn Raschke, and William Dilla.

"Information Security Professionals' Perceptions about Information Security and Internal Audit." *Journal of Information Systems* 2013 27 (2): 65-86. With Paul J. Steinbart, Robyn Raschke, and William Dilla.

"The Relationship between Internal Audit and Information Security: An Exploratory Investigation." *International Journal of Accounting Information Systems* 2012 13 (3): 228-243. With Paul J. Steinbart, Robyn Raschke, and William Dilla.

"A Measurement Theory Perspective on Financial Reporting," *Journal of Emerging Technologies in Accounting*, 2012 9(1), with Silva Romero, Ted Mock, and Miklos Vasarhelyi.

"Sustainability in Business, Corporate Social Responsibility and Accounting Standards: An Empirical Study." *International Journal of Accounting and Information Management* 2011 19 (3): 304-324. With Orhan Akisik.

"Will Better Information be a Solution to better Management and more Transparency for Investors? A look at ISO 15944." *The World of Accounting Science*, 12:1 (March 2010), pp. 183-208 with Nermin Çitak.

"Query Issues in Continuous Reporting Systems," *Journal of Emerging Technologies in Accounting*, 2008. 5, pp81-99.

"Security Issues in a Continuous Reporting Environment," *Information Systems Control Journal*, 2008.

"Do Performance Measures Really Measure Performance: The Development of an Adjusted Plus Minus Rating," *Journal of the American Society of Business and Behavioral Sciences* 2008.

"Monitoring Processes and Internal Control Adequacy: Continuous Monitoring Within a Microsoft Access Database," *Information Systems Control Journal* 2007, with Seth Rosen, Matt Brewster, and Andry Zubenko.

"Interface Style and Training Task Difficulty as Determinants of the Efficacy of Computer-Based Training for the Acquisition of Knowledge about Internal Controls," *DECISION SCIENCES* 1992 23(1) with Paul Steinbart.

"Expert Systems and AI-Based Decision Support in Auditing: Progress and Perspectives," *Intelligent Systems in Accounting, Finance, and Management* 1(1992) 53-63 with William E. McCarthy, Eric Denna, and Stephen Rockwell.

"Artificial Intelligence and Research in Accounting Information Systems: Opportunities and Issues," *The Journal of Information Systems*, 1987 2(1) 54-57 with Paul Steinbart.

"Operation of a Relational Accounting System," *Advances in Accounting*, 1986 3 83-112 with William E. McCarthy.

"Specification of Internal Accounting Controls in a Database Environment," *Computers and Security*, 1985 4(1) 23-32 with William E. McCarthy.

Books

Sustainability and Social Responsibility: Regulation and Reporting Editor with Orhan Akisik and William Wooldridge associate editors 2017 Springer Publishing

5th International Workshop on Business/IT Alignment and Interoperability BUSITAL 2010 Editor with CAISE '10 with Michaël Petit and Annick Castiaux

Computer Usage in Business Schools edited with Joe Sardinias (University of Massachusetts, 1990).

Chapters in Books

"Are Sustainability Disclosures Fraudulent?" In *Sustainability and Social Responsibility of Accountability Reports*, edited by Kiyem Tunca Çalıyurt and Roshima Said, 51-64. 2018 Singapore: Springer.

"Can Sustainability be Budgeted for? Evidence from Iran" in *Sustainability and Social Responsibility: Regulation and Reporting* Orhan Akisik and William Wooldridge associate editors 2017 Springer Publishing with Farzaneh Jalali.

"Databases and Artificial Intelligence", in *Gale Business Encyclopedia* 1992.

"Expertise, Experts, and Expert Systems Development," *Expert Systems: Planning, Implementation, Integration* (Summer 1990).

"The Use of Rule-Based Expert Systems to Investigate the Effects of Experience on Audit Judgments," in *Artificial Intelligence in Accounting and Auditing: The Use of Expert Systems* Miklos Vasarhelyi (ed), (Markus Wiener, 1988) with Paul Steinbart.

"The Role of Expert Systems in Accounting," in *Artificial Intelligence in Accounting and Auditing: The Use of Expert Systems* Miklos Vasarhelyi (ed), (Markus Wiener, 1988) with Paul Steinbart.

"Auditing and Information Systems: Some Problems and Opportunities," in *Information Systems in Accounting Education* (The Ohio State University, 1985) Daniel. Jensen (ed) pp. 163-181 with Alvin Arens and William E. McCarthy

"Procedural and Declarative Features of a CODASYL Database." In *Entity-Relationship Approach to Information*, edited by Peter Chen, 1981 197-214. With William E. McCarthy.

Conference Proceedings and Presentations

"Known Knowns and Unknown Unknowns: The Big Capture of Data in the Age of AI", JIS Research Conference in conjunction with the Korean Accounting Association, Gangneung, South Korea, June 2026 with Michael Alles.

"Controlling the Release of Sensitive Information by Creating Integer Representations of Inferences", AAA Midyear Meeting of the IS and SET sections, February 2025.

"Metaphysics of Internal Controls," Hawaii Accounting Research Conference, January 2025

"Controlling the Release of Sensitive Information by Creating Integer Representations of Inferences", Keynote Address World Continuous and Reporting Symposium, Istanbul Technical University. July 2024.

"Controlling the Release of Sensitive Information by Creating Integer Representations of Inferences",

Hawaii International Conference on System Science. January 2024.

Do Companies That Are More Socially Responsible Obtain More Support from Customers? MODAV's 20th International Conference on Accounting, Bilikent University, Ankara, Turkey September 2023.

"The REA Ontology – The Relationship to the Control of Sensitive Information," May 2023 Presentation at the Basic Foundational Ontology Summit, University of Buffalo Center for Tomorrow.

"The REA Accounting Model as a Business and Economic Ontology," May 2023 Webinar for the American Accounting Association Part II Chapters 4-6.

"The REA Accounting Model as a Business and Economic Ontology," April 2023 Webinar for the American Accounting Association Part I Chapters 1-3.

"Metaphysics of Internal Controls" the Hawai'i Accounting Research Conference. University of Hawai'i January 2023.

"What Information Can Remain Hidden versus What Must be Disclosed: The Future of Auditing," Keynote address to MODAV's 19th International Conference on Accounting, Anadolu University, Eskişehir, Turkey September 2022.

"Inferences: Derivatives and Integrals," VMBO workshop at CAiSE, Leuven University, Leuven, BE, June 2022.

"Accounting Standards, Social Responsibility, and Income Inequality," Keynote address to the 12th International Conference on Governance, Fraud, Ethics, & Corporate Social Responsibility, London, UK December 2021.

"Metaphysics of Internal Controls" to the Workshop on Blockchain, Ontology, and Decentralized Economic Networks, Université Saint-Louis - Bruxelles, December 2021.

"The Metaphysics of Internal Controls" to the 51st World Continuous Auditing and Reporting Symposium November 2021

"The Metaphysics of Internal Controls" to the University of Waterloo Centre for Information Security and Assurance October 2021

"The Metaphysics of Internal Controls" to the Rutgers University Accounting Information Systems summer research workshops June 2021

"REA Ontology and Accounting" to MBA class at Lonzhou University China December 2019.

"Audit Issues in Blockchains," Accounting Blockchain Coalition symposium, Microsoft Center NYC, June 2019

"The Future of Business – Developing a Conceptual Foundation for Collaboration Space," Presented to the BIT's 6th Annual World Congress of InfoTech-2019, Nanjing, China, May 2019.

"The Metaphysics of Internal Controls," presented at Value Management and Business Ontology (VMBO) workshop at Stockholm University, March 2019.

"The REA Ontology and Smart Contracts" invited presentation University of Ghent, December 2018

REA Ontology and Smart Contracts, American Accounting Association Blockchain Workshop, San Francisco, CA September 2018

“ERP Systems in Blockchains,” Accounting Blockchain Coalition symposium, Microsoft Center NYC, June 2018

“REA Contracts and Smart Contracts on the Blockchain,” Draft work presented to working group of Consensys blockchain firm, Amherst, Massachusetts, 20 November 2017.

“REA Contracts and Smart Contracts,” Presentation to the Value Management and Business Ontology (VMBO) Workshop, Amsterdam, the Netherlands, February 2018.

“Blockchains, Accounting, and Tokenization of the REA Ontology,” research workshop, Annual Meeting of the American Accounting Association, August 2017 with William E. McCarthy

“Tokenization of Independent-View REA Components on the Blockchain,” Presentation to the Value Management and Business Ontology Workshop, Luxembourg, March 2017 with William E. McCarthy

“Distributed Transaction Repositories (Blockchains) and Open Value Networks with REA Modeling,” Presentation to CONSENSYS (blockchain development firm), Brooklyn NY, October 2016 with William E. McCarthy

“Congruent and Meronymic Constellations in the REA Ontology” Presentation to The Value Management and Business Ontology Workshop (VMBO 2016), Trento University, Italy, March 2016 with Guido Geerts and William E. McCarthy

“Information Security Professionals’ Perceptions about the Relationship between the Information Security and Internal Audit Functions,” Information Systems Mid-year meeting, January 2013, refereed

“Software Quality and Data Level Assurance,” Information Systems Mid-year meeting, January 2013 refereed.

“Software Quality and Data Level Assurance, 24th World Continuous Auditing and Reporting Symposium, Malatya, Turkey 2012 refereed.

“Query Issues in Continuous Reporting Systems, 24th World Continuous Auditing and Reporting Symposium, Malatya, Turkey 2012 invited presentation.

“The Relationship between the Internal Audit and Information Security: An Exploratory Investigation,” University of Waterloo Centre for Information Integrity and Information Assurance, 7th Bi-Annual Research Symposium, Discussant, 2011.

“The Ontological Foundations of REA Enterprise Information Systems” Invited Keynote Presentation (with William E. McCarthy and Guido Geerts) to The Workshop on Value Management and Business Ontologies (VMBO), Ghent, Belgium, February 2011

“Internal Auditor Perceptions on their Role in the Prevention of Financial Reporting Fraud,” European Accounting Association Annual Congress, 2011 – refereed.

“An Ontology-Based Business Process State Machine,” Amsterdam, Holland, 21 December 2009, The International Workshop on Value Modeling and Business Ontologies – VMBO2009 (with Satoshi Horiuchi,

William E. McCarthy, and Guido Geerts)

"Semantic Specification & Automated Enforcement of Internal Controls," Stockholm, Sweden, 10 February 2009, The International Workshop on Value Modeling and Business Ontologies with William E. McCarthy

"Information Fusion in Continuous Assurance," University of Waterloo Centre for Information Integrity and Information Assurance, 6th Bi-Annual Research Symposium, Discussant, 2009.

"The SEC's Interactive Data Initiative & XBRL," Charleston, South Carolina, 10 January 2009, Midyear Meeting of the Information Systems Section of the AAA with William E. McCarthy

"A COSO Framework and the Evaluation of Voting Systems," Northeast Regional Meeting of the American Accounting Association, with Dick Asebrook, 2008.

"Do Performance Measures Really Measure Performance", ASBBS conference, Las Vegas, NV February 2006, refereed.

"Semantic Specification and Automated Enforcement of Internal Control Procedures within Accounting Systems," *Proceedings of the 1991 Congress of the European Accounting Association*, Maastricht, The Netherlands, April 1991 with William E. McCarthy.

"Expert Systems and AI-Based Decision Support in Auditing: Progress and Perspectives," *Proceedings of the University of Kansas Audit Symposium*, May 1990 with William E. McCarthy and Eric Denna.

"Integrating Intelligence into Databases: Some Example Approaches," Presentation at the USC Symposium on Artificial Intelligence in Business, Management, and Accounting, October 1989, with William E. McCarthy and Stephen Rockwell.

"The Use of Rule-Based Expert Systems to Investigate the Effects of Experience on Audit Judgements," *Proceedings of the Seventh International Conference on Information Systems*, December 1986 with Paul Steinbart.

"Auditing and Information Systems: Some Problems and Opportunities," *Conference on Accounting Education: Information Systems in Accounting Education* Daniel L. Jensen (ed), 1985, with Alvin A. Arens and William E. McCarthy.

"Specification of Internal Controls with QBE Views and Dictionary Facilities." *Midwest Meeting of the American Institute for Decision Sciences*. Milwaukee: American Institute of Decision Sciences. 1982 With William E. McCarthy.

"Operation of a Relational Accounting System." *Northeast American Accounting Association Meeting*. Newport: American Accounting Association. 1982 With William E. McCarthy.

"A CODASYL Implementation of an Events Accounting System," *Proceedings of the 1980 Annual Meeting of the Midwest Region of the American Accounting Association*, 1980 with William E. McCarthy refereed.

Book Reviews

Management Information Systems for the Information Age, *Issues in Accounting Education* 2003

Accounting Information Systems for *Issues in Accounting Education* 2000

Models of Accounting Information Systems by Lars A. Samuelson for *THE ACCOUNTING REVIEW* 66(April) 206.

WORKING PAPERS

Known Knowns and Unknown Unknowns: The Big Capture of Data in the Age of AI with Michael Alles under review

Metaphysics of Internal Controls.

Inferences and Derivatives of Ontological systems

Controlling the Release of Sensitive Information using Integers.

Do Intangible Assets Improve the use of Foreign Direct Investments?

Do firms that are more socially responsible and have better internal controls obtain more support from customers?

Financial performance, intangibles and institutions: The experience of EU countries, **status: in preparation**

The Dark Triad and Earnings Management Assessment Across Socially Responsible vs. Irresponsible Firms

“Improving the Prospects for XBRL Adoption and Use,” with Guido Geerts and William McCarthy

“Semantic Specification and Automated Enforcement of Internal Control Procedures within Accounting Systems,” with Guido Geerts and William E. McCarthy.

RESEARCH IN PROGRESS

What is the role of time in inferences?

The Dark Triad and its impact on information security behaviors

Sadistic Hacking – How are sadistic behaviors evident in different hacking attempts

Determining the level of control necessary to deter Machiavellian hackers

SUBMITTED GRANTS

Semantic Specification of Internal Control, NSF Program Solicitation 22-512 with Drs William E. McCarthy and Barry Smith, January 2023, requested amount \$709,000

Creating an IT Assurance Group in the State of Massachusetts Assurance Department, with Dr. Senay Solak, Awarded \$99,979 January 2023

“Team Base Learning,” University of Massachusetts, awarded 2011, named TBL Fellow.

“Formal Specification of Interoperability and Reporting Semantics with the Resource-Event-Agent (REA) Enterprise Ontology” Submitted to the National Science Foundation 2008.

“Capstone course with CSL Orientation” awarded CITI Funding 2004.

“Development of CSL Course” awarded CITI funding 2005

“Service Learning Implementation grant awarded funding 2005

CITI online course development grant 2002

Isenberg School of Management Research Grant 1999

School of Management Research Grant 1988

School of Management Research Grant 1989

"An Investigation of the Effects of the Use of Expert Systems on the Development and Refinement of Audit Judgment Skill."

"Decision Support and the Deterioration of Previously Acquired skills."

"Decision Atrophy under Different types of Decision Support Schemes."

INVITED PRESENTATIONS

“Controlling the Release of Sensitive Information by Creating Integer Representations of Inferences”,
Keynote Address World Continuous and Reporting Symposium, Istanbul Technical University. July 2024.

The REA Accounting Model as an Accounting and Economic Ontology workshop at Adelaide University,
Adelaide SA Australia, December 2023

Inference Control: The Relationship to Control over Fraud, ICOGFECSR, GEDIK University, Istanbul,
Turkey December 2023

Customer Support for CSR firms presented to MODAV at Bilikent University Ankara Turkey, September
2023

What Information Can Remain Hidden versus What Must be Disclosed: The Future of Auditing presented
to MODAV at Anadolu University Eskişehir Turkey, September 2022

REA Contracts and Smart Contracts on the Blockchain, presented at University of Ghent, December 2018

Implementation of REA Smart contracts, VMBO, Free University of Amsterdam, March 2018

The REA Ontology and Blockchains – AAA Annual Meeting San Diego 2017

Implications of Blockchains for ERP systems, Accounting Blockchain Coalition, Microsoft NYC, May 2017

The REA Ontology – Rutgers Ph.D symposium 2016

Aggregations and Disaggregations of Accounting Information, University of Melbourne, June 2012

Controls for Cloud Computing, Massachusetts Bar Association, 2010

Will Better Information be a Solution to better Management and more Transparency for Investors? A look at ISO 15944. 2010

Semantic Specification and Automated Enforcement of Internal Controls within Accounting Systems, Value Modeling of Business Objects, Royal University of Stockholm, February 2009.

Methods to Secure Information in a Continuous Reporting Environment – Semantic Modeling of Accounting Phenomena 2009.

An OCL Representation of Internal Controls in the REA Ontology, 2nd International Conference on Governance, Fraud, Ethics, & Social Responsibility, Trakya University, 2009

Information Systems Curriculum to the Boston Society Management 2009

Security for Continuous Reporting Systems, 22nd World on Continuous Auditing and Reporting Symposium, Rutgers University 2009.

Panel on Accounting Control Assessment Standards: The Missing Piece in the Restatement Puzzle, 21st World Continuous Auditing/Monitoring Symposium, Rutgers University November 2008

Security Issues for Queries in a Continuous Reporting Environment, 21st World Continuous Auditing/Monitoring Symposium, Rutgers University November 2008

OCL Representation of Internal Controls, REA Workshop at 3rd REA Technology Workshop Montpellier, France 2008.

Business Ontologies Workshop, NSF Funded workshop, Arlington, VA 2008

Internal Controls and their Representation, SMAP meeting as part of the Mid-year meeting of the American Accounting Association Information Systems Section, Redondo Beach, CA 2008.

Query Issues for Continuous Reporting Systems, Continuous Reporting Symposium, Rutgers University, May 2008.

Ontological Extensions to the REA Model to Support Continuous Monitoring, 14th World Continuous Monitoring and Reporting Symposium, Rutgers University, November 2007

Semantic Specification and Automated Enforcement of Internal Control Procedures within Accounting Systems," SMAP meeting Phoenix, AZ January 2006

Invited participant "REA Technology workshop, IT University of Copenhagen, Skodsborg, Denmark, April 2004

Invited participant "SMAP workshop, Clearwater, FL, January 2004

"Paying for Change," University of Massachusetts Non-Profit Center and Springfield Downtown Higher Education Center April 2002

"Information Systems Curriculums" to the Boston Society Management 1998

"Use of Computers in Accounting Education," meeting of the Northeast Decision Sciences April 1996.

"Directions of the Accounting Information Systems Curriculum," meeting of the Northeast Region of the American Accounting Association March 1994.

"Research in Accounting Information Systems," meeting of the Southeast Region of the American Accounting Association April 1993

"Semantic Specification and Automated Enforcement of Internal Accounting Controls," to the University of Waterloo accounting workshop.

Panelist at the 1990 Northeast Regional Meeting of the American Accounting Association to discuss different approaches to teach the first accounting information systems course.

"Expert Systems and Database Design," ORSA/TIMS 1989.

"Stock Market Reaction to the Introduction of Information Systems to Improve Competitive Position," to the Michigan State University Department of Accounting research colloquium, 1988.

"Expertise and the Specification of Accounting Database Constraints," national meeting of the Decision Sciences Institute, 1987.

"Knowledge Base Refinements as an Indication of Auditor Experience," at the University of Southern California Audit Judgment Symposium, 1986.

"An Artificial Intelligence Approach to Monitoring Data and System Security," to the Worcester and 128 chapters of the DPMA, 1985.

"Accounting, Decision Making an Artificial Intelligence," to the Massachusetts Pioneer Valley chapter of the National Association of Accountants, 1985.

"An Artificial Intelligence Framework for Conceptual Specification and Evaluation of Internal Control," to the ORSA/TIMS national meeting, 1985.

CASES WRITTEN

Data Analytics User Manual

Cases included:

Benford's Analysis – 1.4 million transactions

Find the Fraud – Data with suspicious transactions as indication of control violations.

Precision Versus Accuracy – Transactions indicate issues with data capture.

Take off and Landing inference – Data related to US flights (used for locations on map)

Days of the Week – Data to determine whether company makes sales evenly over the week.

Drop of Product Line – Data to determine whether a company should drop or keep product lines.

Marshall Steinbecks – for Systems Analysis and Design course

RCS - Value Chain Models of REA Business Processes – Presented at SMAP meeting January 2006, Phoenix, AZ.

Bills Electronics – Database queries for performance.

SOFTWARE DEVELOPED

Database for Fraud investigation, contains over 10,000 transactions.

Database to model sales in small retail company (Used simulation to create set of transactions).

Database to model accounts payable (gives Entity-Relationship view of data)

Database to track inventory for bakery (does specific inventory tracking)

Spreadsheet for instruction of the calculations used to value inventory under process costing

Spreadsheet and tutorial for creation of Pivot tables

Database to track hockey statistics

SERVICE ACTIVITIES

Editorships

Financial Statistical Journal editorial board

Annals of Emerging Technologies in Computing (AETiC) editorial board

Accounting Finance Auditing: An International Journal editorial board

Managerial Auditing Journal special issue on Cybersecurity Assurance

Managerial Auditing Journal special issue on Continuous Auditing/Continuous Monitoring

Journal of Accounting Institute publication of the Istanbul University School of Business editorial board

Journal of Information Systems special issue on Cloud Computing

Journal of Information Systems special issue on Blockchains

Journal of Information Systems associate editor

Journal of Information Systems editorial board

Journal of Emerging Technologies in Accounting associate editor

Journal of Emerging Technologies in Accounting editorial board

International Journal of Auditing Technology editorial board

TIDE AcademIA Research editorial board

Scientific Committees

Modav 2022, 2023, 2024, 2025

VMBO. 2019, 2020, 2021, 2022, 2023, 2025

Service to the Profession

Program Committee International Conference on Information Systems Development, 2026

Member of AAA Notable and Distinguished Contributions to Accounting Literature Award Screening Committee 2023-2024

Elected Secretary Forensic Accounting Section of the American Accounting Association 2018

Outside PhD committee member Yusen Wang, Yong Bum Kim, Pe Lei, and Siripan Kuelikauw Rutgers University

Reviewer of Model Curriculum Applications for the Information Systems Audit and Control Association, 2012

Elected President Strategic and Emerging Technologies Section of the American Accounting Association 2011

Elected Vice President Strategic and Emerging Technologies Section of the American Accounting Association 2010

Elected Secretary/Treasurer Strategic and Emerging Technologies Section of the American Accounting Association 2009

Appointed Member of Information Systems Audit and Control Association's Academic Program Board, 2009-2012.

Chair of Research Committee Strategic and Emerging Technologies Section of the American Accounting Association

Organizing and Program committee BUSITAL workshop as part of CAISE 2009

REA ontology working group 2010 - present

Outside member doctoral committee Rutgers University Department of Accounting 2010, 2011, 2012.

Reviewer REA 25.

Discussant American Accounting Association National meeting. 1995 - 2012

Reviewer of manuscripts for the American Accounting Association Northeast Regional meeting 2000, 2008, 2009, 2012

Reviewer of manuscripts for the American Accounting Association national meeting 1991, 2005-2012.

Program Committee for the Northeast Regional meeting of the American Accounting Association, 1991.

American Accounting Association Executive Council, 1990, 2010-2014 (term ends in 2014).

University of Massachusetts nominator for the National Collegiate Computer Science Awards, 1990.

Elected Chair of the IS/MAS section of the American Accounting Association, 1989.

Elected Vice Chair of the IS/MAS section of the American Accounting Association, 1988.

Reviewer of manuscripts of the Entity-Relationship conference, 1987.

Elected Secretary/Treasurer IS/MAS section of the American Accounting Association, 1986.

Information Systems Group member on the National Program Committee for the American Accounting Association, 1986.

Reviewer of manuscripts for the 1986 International Conference on Information Systems.

Northeast Regional Coordinator for the Information Systems Group of the American Accounting Association, 1985, 1986, 1987.

Discussant and session chair at the Northeast Regional meeting of the American Accounting Association, 1985.

IFIP WG 8.1 working conference on Environments to Support Information System Design Methodologies, Section on Knowledge Based Support, 1985.

Associate Editor Journal of Emerging Technologies 2010-2013

Editorial Board for *The Journal of Information Systems*.

Editorial Board for *Advances in Accounting Information Systems*.

Ad Hoc Reviewer for *The Expert Systems Review*.

Ad Hoc Reviewer for *The Accounting Review*

Ad Hoc Reviewer for *The Kent/Bentley Review*.

Ad Hoc Reviewer for *Auditing: A Journal of Practice and Theory*.

Ad Hoc Reviewer for *Contemporary Issues in Accounting*

SERVICE TO THE UNIVERSITY

Member University ICTC committee

Member University Athletic Council

Member University IBPD

Advisor to students in the Information Technology minor – 2017-2018

Chair of independent study group project on continuous monitoring – Spring 2007

Co-chair CSL course development committee 2005

Information Technology Capstone course development committee 2004

Information Technology Curriculum Committee 1999 to present.

Information Technology Task force 1999 to present.

Academic Priorities Council 1992 to 1994

Committee to write Centrality Document, 1992.

University Computer Committee: Database and Networking subgroups.

Faculty sponsor for three University Without Walls students.

Search Committee for the Dean of the School of Management.

University China Committee.

Ph.D. Dissertation committees for Adele Howe, Carol Broverman, Susan Lander, and Eric Brown computer science.

Ed. D. comprehensive examination committee for Elizabeth Hawes and Charlie Richmond, School of Education.

Ed. D. Dissertation committee for Debra Sinkis, Elizabeth Hawes, and Charlie Richmond School of Education.

SERVICE TO THE ISENBERG SCHOOL OF MANAGEMENT

Represented Isenberg at the McNair Student session June 2023

ISACA Academic Advocate

Member of Community Diversity, and Social Justice Committee 2004 to 2007

Faculty sponsor Information Technology Club

Faculty sponsor National Leadership Society chapter

Participant in SITEC regular meetings and sponsor roundtable discussions.

Faculty sponsor of first Fidelity Shadowing program.

Faculty sponsor of EDS Case Challenge team.

Faculty coordinator of the School of Management computer labs 1992-1994.

Task force to review the computer and information systems curriculum, 1990.

School of Management Master's program curriculum and policy committee (served as chair 1986-87).

School of Management committee to review Ph.D. program in information systems.

School of Management International Task Force.

Ph.D. dissertation committee for Thomas Abraham.

Comprehensive examination committee for Dottie Eastman (chair) and Thomas Abraham (chair) Ph.D. students and Francine Smith and Julian Mansilla MBA students.

Taught financial management course for the Small Business Development Center.

SERVICE TO THE DEPARTMENT OF ACCOUNTING

Chair honors project Emily Kim 2024-2025

Chair honors project Nicholas Quigley 2024-2025

Chair honors project Connor O'Hara 2023-2024

Chair honors thesis Sebastian D'Agostino - 2005-2006

Created online version of SOM 210

Department student advising committee.

Northeast Regional planning committee.

Worked with Beta Alpha Psi on an evening to look at consulting careers.

Department of Accounting and Information Systems Personnel Committee 1985.

Department of Accounting and Information Systems committee to review MS program.

Ph.D. committee for Dana Forgione.

Honors project chair Christopher Chu 2004

Supervised Honors Thesis/Project Jonathan Goldman 2000

Supervised Honors Thesis CJ Dematteo 2000

Supervised Honors Project Kristin Foss 2001

Supervised Honors Project Michelle Lessard 2002

Supervised Honors Thesis Paul Goodchild 2001

Supervised Comp Sci Ind study Roman Breselav 2003

Member Honors Committee Kate NG 1998

Member Graduate project committee Melinda Pettit 1998

SERVICE TO THE COMMUNITY

Advisor to Amherst Food COOP

Secretary and statistical advisor to Interstate Junior Hockey League

Financial Advisor to the Amherst Hockey Association.

Financial Advisor to the Worcester Crusaders, Inc.

Assisted Amherst Montessori Schools in the selection and use of computerized accounting systems.

Consulted with local firms on information systems development.

Worked with Junior Minutemen Hockey Association to place local players in college and prep-school. To date seven players in college with scholarships and another 17 in various prep-schools.

Assisted local sports camps with database to handle registration.

Handler and Trainer Therapy Dogs International