

# **Curriculum Vitae**

## **Peter Richard Gillett**

Associate Professor
Department of Accounting and
Information Systems
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#### **EDUCATION**

1996	Ph.D. (Business), University of Kansas
1979	M.A. (Mathematics and Philosophy), St. Edmund Hall, University of Oxford
1975	B.A. (Mathematics and Philosophy), St. Edmund Hall, University of Oxford
1965 - 1972	11 'O' Levels, 3 'A' Levels, 2 'S' Levels, Catholic College, Preston, UK

#### PRESENT POSITION

1996 - Present Associate Professor, Rutgers, The State University of New Jersey

#### **PREVIOUS POSITIONS**

2007 - 2008	Academic Director, Prudential Business Ethics Center at Rutgers
1993 - 1996	Graduate Teaching Assistant, School of Business, University of Kansas
1986 - 1992	Partner in charge of Advanced Audit Techniques, European Director of Audit Methods, Grant Thornton, UK

1984 - 1985	Director, Thornton Baker
1975 - 1984	Assistant - Senior Manager, Price
	Waterhouse, UK

#### **DISSERTATION TOPIC**

"A Comparative Study of Audit Evidence and Audit Planning Models Using Uncertain Reasoning", July 1996

#### **PUBLICATIONS**

#### **BOOKS**

"Conflict, Consistency and Consonance in Belief Functions: Coherence and Integrity of Belief Systems" *Belief Functions in Business Decisions* (Springer-Verlag, 2002)

"Audit Judgment" *Auditing Practice, Research and Education: a Productive Collaboration* (AICPA, 1995, pp. 55 - 85) [lead Chapter author]

Grant Thornton Audit Manual (London: Longman, 1990) (wrote Chapters 4, 6, 7, 8, 10, 12, 13, 14, 19; edited Chapters 5, 11, 15, 16, 17, 18, 20; reviewed remaining Chapters)

#### JOURNALS (refereed)

"Auditor Perceptions of Prior Involvement and Reputation Threats as Antecedents of Quality Threatening Audit Behavior" *Managerial Auditing Journal* (Vol. 27, No. 9, 2012, pp. 796 - 820) [with Marietta Peytcheva]

"The Impact Of Multi-Dimensional Corporate Transparency On US Firms' Credit Ratings And Cost Of Capital" *Review of Quantitative Finance and Accounting* (December 2011) [with David DeBoskey]

"How Partner's Views Influence Individual Auditors' Judgments" *Auditing: A Journal of Practice and Theory* (November 2011, pp. 285 - 301) [with Marietta Peytcheva]

"Differential Evaluation of Audit Evidence from Fixed vs. Sequential Sampling" *Behavioral Research in Accounting* (Vol. 23, No. 1, 2011) [with Marietta Peytcheva]

"Representation of Interrelationships among Binary Variables under Dempster–Shafer Theory of Belief Functions" *International Journal of Intelligent Systems* (Vol. 24 No. 4, 2009, pp. 1 - 17) [with R. P. Srivastava and L. Gao]

"A Probabilistic Logic Based on the Acceptability of Gambles" *International Journal of Approximate Reasoning* (Vol. 44, 2007, pp. 281 - 300) [with G. Shafer and R. B. Scherl]

"CFO Intentions of Fraudulent Financial Reporting" *Auditing: A Journal of Practice and Theory* (Spring 2005, pp. 55 - 75) [with Nancy Uddin]

"A New Understanding of Subjective Probability and its

Generalization to Lower and Upper Prevision" *International Journal of Approximate Reasoning* (Vol. 33, 2003, pp. 1 - 49) [with G. Shafer and R. B. Scherl]

- "The Effects of Moral Reasoning and Self-Monitoring on CFO Intentions to Report Fraudulently on Financial Statements" *The Journal of Business Ethics* (Vol. 40, 2002, pp.15-32) [with Nancy Uddin]
- "The Logic of Events" *Annals of Mathematics and Artificial Intelligence* (Vol. 28, 2000, pp. 315 389) [with G. Shafer and R. B. Scherl]
- "Monetary Unit Sampling: A Belief-Function Approach for Audit and Accounting Applications" *International Journal of Approximate Reasoning* (Vol. 25, 2000, pp. 43 70)
- "Attribute Sampling: A Belief-Function Approach to Statistical Audit Evidence" *Auditing: A Journal of Practice and Theory* (Spring 2000, pp. 145 155) [with R. P. Srivastava]
- "Continental Development Corporation" *Journal of Accounting Case Research* Volume 5, No. 2 (July, 2000, pp. 81 90) [with M. Ettredge]
- "Automated Dynamic Audit Programme Tailoring: An Expert System Approach" *Auditing: A Journal of Practice and Theory* (1993 Supplement, pp. 173 189)

#### JOURNALS (other)

- "Expert Systems: delivering on the promise" *audIT The Audit Automation Magazine -* Issue 20 (Cork: Cork Publishing Limited, December 1993, pp. 4 7)
- "Automating Analytical Procedures Part 3" *audIT The Audit Automation Magazine* Issue 17 (Cork: Cork Publishing Limited, June 1993, pp. 25 37)
- "Automating Analytical Procedures Parts 1, 2 & 3" *audIT The Audit Automation Magazine* Issue 16 (Cork: Cork Publishing Limited, April 1993, pp. 15 25)
- "Automating Analytical Procedures Parts 1, 2 & 3" *audIT The Audit Automation Magazine* Issue 15 (Cork: Cork Publishing Limited, February 1993, pp. 10 18)
- "Audit Sampling with IDEA" *audIT The Audit Automation Magazine* Issue 14 (Cork: Cork Publishing Limited, December 1992, pp. 15 18)
- "Interactive Data Extraction and Analysis: Using IDEA 4.0" *audIT-The Audit Automation Magazine* Issue 1 (Cork: Cork Publishing Limited, September 1990, pp. 12 18)

# PROFESSIONAL PUBLICATIONS WRITTEN ANONYMOUSLY

ICAEW, IT Brief - Expert Systems (London: ICAEW, 1994, pp. 1 -

ICAEW, *IT Brief - Audit Automation* (London: ICAEW, 1993, pp. 1 - 11) (Author)

#### OTHER ANONYMOUS PROFESSIONAL PUBLICATIONS

ICAEW, *IT Brief - End User Computing* (London: ICAEW, 1993) (Chairman of Working Party drafting text)

ICAEW, *IT Statement Number 5 - Controlling Small Computers* (London: ICAEW, November 1988, pp. 1 - 15) (Secretary of Working Party drafting text)

#### **PUBLISHED CONFERENCE PROCEEDINGS**

"Basing Probabilistic Logic on Gambles" *Proceedings of the 4<sup>th</sup> International Symposium on Imprecise Probabilities and Their Applications* (Brightdocs, 2005, pp. 173 - 182)

"Subjective Probability and its Generalization to Lower and Upper Prevision: A New Understanding" *Proceedings of the 3<sup>rd</sup> International Symposium on Imprecise Probabilities and Their Applications* (Carleton Scientific, 2003, pp. 511 - 525)

"Discussant's Response to 'A Decision Aid for Internal Control Testing Plan Selection'" *Auditing Symposium XIV: Proceedings of the 1998 Deloitte & Touche/University of Kansas Symposium on Auditing Problems* (University of Kansas, School of Business, 1999, pp. 153 - 157)

"Discussant's Response to 'A Behavioral-Economics Approach to Auditors' Risk Assessments'" *Auditing Symposium XII: Proceedings of the 1994 Deloitte & Touche/University of Kansas Symposium on Auditing Problems* (University of Kansas, School of Business, 1995, pp. 133 - 139)

"Discussant's Response to 'Practical Experiences with Regression Analysis'" *Auditing Symposium XI: Proceedings of the 1992 Deloitte & Touche/University of Kansas Symposium on Auditing Problems* (University of Kansas, School of Business, 1993, pp. 171 - 175)

#### PRESENTATIONS AND SPEAKING ENGAGEMENTS

AAA Annual Meeting, Anaheim 2008: "Responsibility for Previous Work, Time Pressure, and Suppression of Audit Evidence" [with Marietta Peytcheva]

AAA Annual Meeting, Anaheim 2008: "The Impact Of Multi-Dimensional Corporate Transparency On Us Firms' Credit Ratings And Cost Of Capital" [with David DeBoskey]

Merck Summer Institute on Bioethics, July 2008, Opening and Closing Addresses; Introduction to Epidemiological Modeling; Ethical Decision Making

AAA Annual Meeting, Chicago 2007: "The Effect of Stopping Rules

on the Evaluation of Audit Evidence" [with Marietta Peytcheva]

Merck Summer Institute on Bioethics, July 2007, Opening and Closing Addresses

AAA IS Section Mid-year Meeting, Scottsdale AZ, January 2006: "Approaches to teaching AIS"

4<sup>th</sup> International Symposium on Imprecise Probabilities and Their Applications, Carnegie Mellon, Pittsburg, July 2005: "Basing Probabilistic Logic on Gambles"

Prudential Business Ethics Center at Rutgers, October 2003: "Corporate Scandals and Whistleblowing: The Enron Collapse and it Aftermath": Panelist

AAA Annual Meeting, Honolulu 2003: "CFO Intentions to Report Fraudulently on Financial Statements" [with Nancy Uddin]

3<sup>rd</sup> International Symposium on Imprecise Probabilities and Their Applications, Lugano, July 2003: "Subjective Probability and its Generalization to Lower and Upper Prevision: A New Understanding"

University of Kansas Management Science Workshop, March 2003: "Towards Probabilistic Logics for Event Spaces"

Rutgers Governmental Accounting & Auditing Update Conference, December 2002, "The Impact of Sarbanes-Oxley"

New Jersey Society of Certified Public Accountants, September 2002: "Enron and the Accounting Profession"

Wilkin and Guttenplan, June 2002: "Enron and the Accounting Profession"

Association of Governmental Accountants / American Society for Public Administration Conference, May 2002: "Enron and the Accounting Profession"

Conference on Enron and the Accounting Profession, May 2002, Prudential Business Ethics Center at Rutgers: "Enron and the Accounting Profession"

AAA Annual Meeting, Atlanta 2001: Discussant

University of Southern California Accounting Research Forum March 2000: "Possibility Theory: A Fuzzy Logic Approach to Audit Evidence and Audit Planning Models"

Ernst & Young Center for Auditing Research and Advanced Technology, Kansas 1999: "Propagating Uncertain Reasoning Using Valuation Networks: The *PURSUIVANT* Project"

University of Kansas Problems in Auditing Symposium 1998: Discussant

Ernst & Young Center for Auditing Research and Advanced Technology, Kansas 1998: "Propagating Uncertain Reasoning Using Valuation Networks: The *PURSUIVANT* Project"

4<sup>th</sup> Annual Governmental Accounting and Auditing Update Conference, Rutgers 1997: "Constructing Audit Models for Planning Financial and Compliance Audits Using Uncertain Reasoning"

Ernst & Young Center for Auditing Research and Advanced Technology, Kansas 1997: "Propagating Uncertain Reasoning Using Valuation Networks: The *PURSUIVANT* Project"

ACCOUNTING 2000: Electronic Commerce, Artificial Intelligence and other Information Technologies (1997): Chairman (presented Introduction and Plenary Session)

7<sup>th</sup> Accounting and Finance Workshop 1996: "Integrating Statistical and Non-Statistical Audit Evidence Using Belief Functions: The Case of Monetary Unit Sampling"

International Symposium on Audit Research, Maastricht 1996: "Integrating Statistical and Non-Statistical Audit Evidence Using Belief Functions: The Case of Monetary Unit Sampling"

AAA Annual Meeting, Orlando 1995: "Integrating Statistical and Non-Statistical Audit Evidence in Attribute Sampling using Belief Functions"

AAA Annual Meeting CPE, Orlando1995: "A Tutorial on Belief Functions"

2<sup>nd</sup> Annual ABO Section Conference, Orlando 1995: Doctoral Student Presenter

University of Southern California Audit Judgment Symposium 1995: Discussant

3<sup>rd</sup> Annual Research Workshop on AI/ES in Accounting, Auditing and Tax, New York 1994: "Expert Systems: a Perspective for Accountants"

University of Kansas Problems in Auditing Symposium 1994: Discussant

University of Southern California Audit Judgment Symposium 1994: Discussant

University of Southern California Audit Judgment Symposium 1993: Discussant

Rutgers University Expert Systems in Auditing 1992: ADAPT

Maastricht Audit Research Symposium 1992: ADAPT

ACE Audit Automation Conference, London 1992: Analytical Procedures

University of Kansas Problems in Auditing Symposium 1992: Discussant

University of Southern California Audit Judgment Symposium 1992: "Automated Dynamic Audit Programme Tailoring (ADAPT) - an expert system approach"

Maastricht Audit Research Symposium 1991: Panel Member

ACE Audit Automation Conference, London 1991: Closing Address

Chartech, London 1991 Conference: Automating the audit practice

University of Southern California Audit Judgment Symposium 1991:

#### Discussant

IEE Conference on Expert Systems, London 1991: What accountants want from Expert Systems

ACE Audit Automation Conference, London 1990: Opening Address

University of Southern California Audit Judgment Symposium 1990: Discussant

ACE Audit Automation Conference, Brussels 1989: Opening Address

#### **GRANT THORNTON**

International Audit Manual Implementation Training Course Presented personally to partners and managers in:

Europe (Brighton 1990)

UK (London 1990)

Netherlands (Alphen a/d Rijn 1990)

Australia (Melbourne, Sydney, Brisbane 1991)

Hong Kong (1991)

Malta (1991)

South Africa (Johannesburg 1991)

Audit Automation Training Courses in:

Australia (Sydney 1991)

Hong Kong (1991)

Malta (1991)

Europe (1991 & 1992)

South Africa (1992)

**Analytical Procedures Course:** 

Europe (High Wycombe 1991 & 1992)

South Africa (1992)

#### **WORKING PAPERS**

"The impact of multi-dimensional corporate transparency on US firms' market liquidity and analyst forecast properties" [with David DeBoskey]

"On What There Is in the World of Business Activity: An Ontological Investigation of REA" [with David DeBoskey]

"A Probabilistic Logic Based on the Acceptability of Gambles", 48 pages [with Glenn Shafer and Richard B. Scherl]

"Possibility Theory: A Fuzzy Logic Approach to Audit Evidence and Audit Planning Models", 55 pages (Under review)

"Spohn's Epistemic Calculus: A Practical Approach to Audit Evidence and Audit Planning Models", 55 pages

"Computing Marginals in Binary Join Trees", 25 pages [with Prakash P. Shenoy]

"Neural Network Models of Audit Planning Materiality: a Comparison of GANNA and Adaptive Logic Networks", 44 pages

"Type Theory and Event Spaces", 16 pages [with Glenn Shafer,

### Richard B. Scherl and Tatsiana Levina]

"Audit Indicators of CFO Intentions to Report Fraudulently on Financial Statements", 6 pages [with Nancy Uddin]

"Using Evidential Networks to Aggregate Audit Evidence: Belief Functions versus Probabilities", 5 pages [with Rajendra P. Srivastava and Mike Etteredge]

GRANTS, AWARDS & DISTINCTIONS		
April 2011	Rutgers Business Governing Association Best Accounting Information Systems Professor Award	
April 2011	Rutgers Business Governing Association Most Challenging Course Award	
April 2009	Beta Alpha Psi Professor of the Year Award	
April 2008	Honorary Member, Rutgers University Glee Club	
August 2006	PwC Accounting Symposium Participant	
July 2006	PwC Faculty University Participant	
August 2005	PwC Accounting Symposium Participant	
June 2004	PwC Faculty University Participant	
2001	Trueblood Seminar Participant	
May 2000	Visiting Scholar, Ernst & Young Center for Auditing Research and Advanced Technology	
2000	GE Teaching Fellowship	
1999 - 2002	NSF Grant "The Representation of Causality for Auditing" (\$338,114)	
May 1999	Visiting Scholar, Ernst & Young Center for Auditing Research and Advanced Technology	
1998	AICPA/AAA Collaboration Award	
May 1998	Visiting Scholar, Ernst & Young Center for Auditing Research and Advanced Technology	
1997 - 1998	GE Teaching Fellowship	
1997 - 2001	Graduate Faculty, Graduate School (Newark), Rutgers, The State University of New Jersey	
May 1997	Visiting Scholar, Ernst & Young Center for Auditing Research and Advanced Technology	
1997	Dorothy Haglund Prize for Outstanding Doctoral Dissertation, University of Kansas	

Graduate School

1997	AAA New Faculty Consortium Participant
1996	Beta Gamma Sigma
1995 - 1996	Ernst & Young Doctoral Fellow
1995	Deloitte & Touche/AAA Doctoral Consortium Fellow
1994 - 1996	Dean's List, School of Business
1993 - 1996	Ronald G. Harper Doctoral Fellow
1972 - 1973	Open Exhibition, St. Edmund Hall, University of Oxford

#### PROFESSIONAL QUALIFICATIONS

Fellow of the Institute of Chartered Accountants in England and Wales (ICAEW)

Member of the British Computer Society (BCS)

Member of the Institute for the Management of Data Processing (IMIS)

Fellow of the Institute of Management (IMgt)

#### **ASSOCIATION MEMBERSHIPS**

IT Faculty of the ICAEW

Audit Faculty of the ICAEW

American Accounting Association (Auditing, SET, ABO , MIS, FIA, and Teaching and Curriculum sections)

American Statistical Association

#### **SERVICE ACTIVITIES**

2016 - 2018	Faculty Representative, Board of Governors
2016 - 2018	Chair, University Senate
2015 - 2018	Member, Honors College Faculty Board
2015 - 2016	Vice Chair, University Senate
2014 - 2018	Member, University Senate Budget and Finance Committee
2013 - 2016	Parliamentarian, University Senate
2012	Chair, University Senate Ad Hoc Task Force on Shared Governance
2011 - 2018	Chief Teaching Technology Officer, Department of Accounting and Information Systems
2009 - 2014	Co-chair, University Structure & Governance Committee

2009 - 2014 2015 - 2018	Member, University Senate Executive Committee
2009	Member <i>ad hoc</i> Honors Program Committee Rutgers Business School–New Brunswick
2009 - 2012	Member, <i>ad hoc</i> Core Curriculum Committee Rutgers Business School–Newark and New Brunswick
2008 - 2010 2016 - 2018	Member, Peer Evaluation Committee, Department of Accounting and Information Systems
2007 - 2010	Member, School of Arts and Sciences Academic Standing Committee
2007 - 2018	School of Arts and Sciences Affiliate
2007 - 2008	Dissertation Committee Chair, Marietta Peytcheva
2006 - 2018	Member, Rules of Procedure Committee Rutgers Business School–Newark and New Brunswick
2006 - 2008 2012 - 2013	Member, Nominations Committee Rutgers Business School–Newark and New Brunswick
2006 - 2018	Faculty Advisor, Rutgers University Kirkpatrick Choir
2005 - 2018	Faculty Secretary, Rutgers Business School
2005 - 2006	Dissertation Committee Chair, David DeBoskey
2005 - 2006	Member of the Notable Contributions to the AIS Literature Award Committee, AAA IS Section
2005 - 2006	Faculty Advisor, Catholic Students Association
2004 - 2007	New Brunswick Faculty Council Member, Academic Regulations & Standards Committee; Teaching Committee
2004 - 2007	Rutgers College Honors Program Faculty Mentor
2004 - 2007	Rutgers College Fellow
2004 - 2007 2009 - 2011 2012 - 2018	Member, Technology Policy Committee Rutgers Business School–Newark and New Brunswick
2004	Chair, Dean's Ad Hoc Committee on Recruitment
2003 - 2006	Member of the CIMIC Research Award

	Committee, Rutgers Business School– Newark and New Brunswick
2002 - 2003	Member, Courses of Study Committee Rutgers Business School–Newark and New Brunswick
2002 - 2014	Member, University Senate Governance and Structure Committee
2002 - 2018	University Senator (Rutgers Business School)
2002 - 2018	Faculty Advisor, Rutgers University Glee Club
2002 - 2006	Ph. D. Coordinator, Department of Accounting and Information Systems
2001 - 2004	Member of the Outstanding Dissertation Award Committee, AAA AI/ET Section
2001 - 2005	Chairman, Ph.D. Qualifying Examination Committee, Department of Accounting and Information Systems
2001 - 2003	Member of the Policy Committee, Department of Accounting and Information Systems
2001 - 2003	Member of the Curriculum Committee, Department of Accounting and Information Systems
2001 - 2014	Editorial Board, <i>Journal of Emerging Technologies in Accounting</i>
2000 - 2006	Member of the Ph.D. Committee, Department of Accounting and Information Systems
2000 - 2014	Editorial Board, International Journal of Accounting Information Systems
2000 - 2001	Past Chairman, Auditing Standards Committee of the AAA Auditing Section
1998 - 2000	Dissertation Committee Chair, Nancy Uddin
1998 - 2000	Dissertation Committee Member, Rich Jones
1998	Dissertation Committee Member, Jill Giles
1998 - 2000	Chairman, Auditing Standards Committee of the AAA Auditing Section
1997 - 2007	New Brunswick Faculty Fellow, Rutgers Business School
1997 - 1999	Member of the Membership Committee, AAA Auditing Section
1997 - 1998	Member of the AAA/AICPA Information Technology Visioning Conference Task

	Force
1997 - 1999	Member of the Ph.D. Committee, Department of Accounting and Information Systems
1996 - 2011	Member of the Academic Standing Committee, Rutgers Business School - New Brunswick
1995 - 1996	President, Association of Business Doctoral Students, University of Kansas
1994 - 2003	Editorial Board, <i>Auditing: a Journal of Practice &amp; Theory</i>
1994	Co-Chairman: Third Annual Workshop on AI/ES in Accounting, Auditing and Tax
1993 - 2018	Ad hoc reviews for eight academic journals including <i>JAR</i> and <i>JIS</i>
1993 - 1995	Chaired chapter subcommittee for AAA/AICPA Monograph on Auditing Research
1992 - 1993	Technical Committee Member, ICAEW IT Faculty

#### PROFESSIONAL EXPERIENCE

1984 - 1992

Grant Thornton, London (Partner in charge of Advanced Audit Techniques, European Director of Audit Methods):

Directing and managing the firm's activities in EDP Audit, Audit Automation and Audit Methodologies

Evaluating, developing and implementing automated audit tools and associated quantitative methodologies and documentation

Promotion and implementation of audit methods within Grant Thornton member firms world-wide

1975 - 1984

Price Waterhouse, London (Audit Assistant, then: Audit Senior, Assistant Manager, Manager, Supervising Consultant):

General audit, accountancy and taxation services for a wide range of British and International companies

Review of controls in a variety of computer-based accounting systems and EDP installations

Development and management of file interrogations

	Administration, planning, staffing and review of computer audit work for a portfolio of over 50 clients
1991 - 1992	Development of the firm's future strategy for audit automation
1990 - 1992	Design and implementation of language- independent and WINDOWS versions of GTSP, a tool for assigning audit risk and planning and evaluating audit samples
1990 - 1992	Presented series of (fourteen) three-day courses to introduce the revised Grant Thornton audit approach and tools to partners in Europe, Australia, Hong Kong, Malta and South Africa
1989 - 1992	Design and implementation of ADAPT, an expert system for audit programme tailoring
1988 - 1992	Chairman of Steering Committee for development of IDEA, a data extraction and analysis tool marketed by the C.I.C.A.
1990 - 1991	Design and implementation of UK version of GTSP
1987 - 1990	Chaired Task Force developing harmonized international version of Grant Thornton Audit Manual
1985 - 1990	Launched audit automation within UK and European practices

#### SELECTED INTERNAL REPORTS

(These documents are confidential to Grant Thornton, Price Waterhouse and their clients; copies may be obtained in confidence from Peter R. Gillett)

"Automated Dynamic Audit Programme Tailoring: An Expert System Approach" (Presented at the USC Audit Judgment Symposium, February 1992: a more detailed version than that published in *Auditing: A Journal of Practice and Theory*)

Text of presentations to ACE Audit Automation Conferences, 1989 - 1992

"London Computer Audit: Working Paper Standards for File Interrogation Work"

"Statistical Sampling: A paper on the use of statistical techniques by the Computer Audit Section of Barclays Bank"

<sup>&</sup>quot;ADAPT Implementation Training"

<sup>&</sup>quot;Audit Policy and Advisory Panel: Automation Strategy"

<sup>&</sup>quot;Audit Policy and Advisory Panel: Graphical User Interfaces"

#### **MAIN TEACHING INTERESTS**

Accounting Information Systems, Managerial Information Systems

REA as a Domain Ontology for Accounting

Business Applications of Artificial Intelligence, Expert Systems

Auditing, Audit Sampling, EDP Audit

**Statistics** 

Research Methodologies

Philosophy of Science

#### **COURSES TAUGHT**

BUS 806: Managerial Information Systems

BUS 605: Accounting Information Systems

BUS 852: Advanced Auditing

BUS 616: Systems Design and Auditing

33:010:458: Accounting Information Systems

26:198:722: Expert Systems

26:010:653: Current Topics in Auditing

26:010:622: Internet Technologies and E-Business

26:010:685: Social Science Methods in Accounting Research

26:620:557: Social Science Research Methods

26:010:680 Current Topics in Accounting Research

#### **DISSERTATIONS SUPERVISED**

Marietta Peytcheva, "Accountability, Reputation Costs, and Opportunistic Auditor Behavior", 2008 (chair of committee)

David DeBoskey, "Coporate Transparency: Key Factors and their Impact on US Firms", 2006 (chair of committee)

Richard Jones, "An Inquiry Into the Effects of Stress on the Task-Related Processing of Individual Auditors", 2000 (member of committee)

Nancy Uddin, "The Experimental Application of the Reasoned Action Model to Fraudulent Financial Statements with Extensions", 2000 (chair of committee)

Jill P. Giles, "Evidence on the Relation between Audit Committee Characteristics and the Quality of Financial Reporting", 1998 (member of committee)

#### **RESEARCH INTERESTS**

My major research interests at present are in Event Spaces and in modeling the various processes of evidence aggregation both in audit planning and in evaluation, using alternative Valuation-Based System paradigms such as Belief Functions and Bayesian Networks. Models presented by academics to date do not deal effectively with auditors' intuitions regarding ignorance, or changing numbers of financial statement items, nor do they allow for the need to quantify potential misstatements, or the adjustment of book values during the audit process. Uncertain reasoning calculi such as Probability Theory, Belief Functions, Possibility Theory and Spohn's Epistemic Beliefs reveal different strengths and weaknesses as modeling tools in audit research.

The *PURSUIVANT* project is developing software to implement these alternative paradigms for uncertain reasoning to facilitate investigation of their application in the auditing domain. Additional research interests are developments of the professional work that I was carrying out over the few years prior to my doctoral studies, in the areas of improved structured (quantified) audit methods and decision support aids. At a practical level I am keen to develop improved methods of modeling audit risk and assigning risk effectively to the various factors involved, and more thorough-going support for the assessment and allocation of planning materiality. I am also very interested in providing improved techniques for the application of analytical procedures throughout the audit, but especially as a source of audit reliance.

I have also been researching the application of Event Spaces to auditing problems in collaboration with Professor Glenn Shafer of Rutgers and Professor Rich Scherl of NJIT. This project combines logic and probability theory to develop new methods and decision aids for causal reasoning. We use a new axiomatization of the classical idea of a probability tree, which goes well beyond the current paradigm of Bayes nets in allowing modular representation of probabilistic information. A constructive axiomatization suitable for implementation within Type Theory has been developed, and lower (and upper) probabilities will be defined for Event Spaces. Financial statement auditing will be used as a test bed for the methods, which will ultimately be applicable to many domains where expert systems are used. Prior research has focused on representing and aggregating uncertainty within a model. Although this research has met its own goals reasonably well, the model itself is almost always either overly simplified or else very specialized, and hence the research has not produced decision aids with the flexibility to serve auditors going into new engagements. Such aids would have to help auditors build causal models, a task they find challenging. When new evidence reveals that factors previously deemed unimportant are, in fact, relevant, they can be taken into account by refining the existing model, rather than replacing it. This ability to reason simultaneously and consistently with causal analyses at different levels of detail will allow the auditor to avoid models that are hopelessly naïve or impossible complex.

Other areas of academic interest include logic, foundations of imprecise probability theory, Philosophy of Science, research methodologies, and business ethics.

In addition, I have been working with former Ph.D. students on projects involving transparency of financial reporting, REA Ontologies for Accounting Information Systems, evaluation of audit evidence from fixed and sequential sampling, and accountability, reputation costs and opportunistic behavior by auditors.

### **PERSONAL INFORMATION**

Date of Birth: 22 November 1953

Marital Status: Married, three children

Citizenship: United Kingdom Permanent Resident: United States of America