## Using a Big CA(A)T to Tame the Big Data Jungle

| Abstract | This presentation will focus on real-life implementation of Continuous Monitoring at Griffith University. Continuous Monitoring has been utilised by the University for over 2 years now and is being used successfully by internal and external audit and line management.<br><br>The presentation will cover the philosophy behind the solution and how it was implemented. Specific business outcomes will be discussed as well. |
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| Bio | Cathy Blunt has been the Manager Internal Audit at Griffith University for seven years. Prior to this Cathy worked for the Australian & Queensland governments, Deloitte and the Bank of Queensland.<br><br>Cathy is a director on the IIA Australia and IIA Global boards, and is a member of the IIA professional certifications board. Cathy sits on audit committees for IIA Global and University of the Sunshine Coast. |
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| | MARIO BOJILOV is a Certified Information Systems Auditor and Fellow of the Financial Services Institute of Australasia (FINSIA). For over 11 years he oversaw the introduction, design, implementation and successful continuous operation of the in-house gaming verification system at the Tatts Group.<br><br>In 2005 Mario founded Meta Business Systems of which he is the current Chief Data Officer. The company is focused on performance and compliance monitoring using business intelligence and Big Data solutions. A number of organisations, such as Griffith University, Brisbane City Council, Queensland Urban Utilities and QUT currently use solutions designed and implemented by Mario and Meta Business Systems. Mario Bojilov holds a Master of Engineering Science Degree from the University of Queensland and a Graduate Diploma of Applied Finance and Investment from the Financial Services Institute of Australasia (FINSIA). Mario has appeared as a presenter and guest lecturer at various professional and academic bodies, such as Institute of Internal Auditors (IIA), Information Systems Audit and Control Association (ISACA), University of Queensland, CPA Australia. Mario is currently serving on the Board of ISACA-Brisbane as President and is the Topic Leader for "Big Data" in ISACA's Knowledge Center. |

## Automating Vendor Fraud Detection in Enterprise Systems

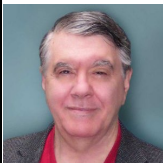| Abstract | Fraud is a multi-billion dollar industry that continues to grow annually. Many organisations are poorly prepared to prevent and detect fraud. Fraud detection strategies are intended to quickly and efficiently identify fraudulent activities that circumvent preventative measures. In this paper we adopt a Design-Science methodological framework to develop a model for detection of vendor fraud based on analysis of patterns or signatures identified in enterprise system audit trails.<br><br>The concept is demonstrated be developing prototype software. Verification of the prototype is achieved by performing a series of experiments. Validation is achieved by independent reviews from auditing practitioners. Key findings of this study are: i) automating routine data analytics improves auditor productivity and reduces time taken to identify potential fraud, and ii) visualisations assist in promptly |
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identifying potentially fraudulent user activities. The study makes the following contributions: i) a model for proactive fraud detection, ii) methods for visualising user activities in transaction data, iii) a stand-alone MCL-based prototype.

| Bio | Kishore has more than ten years experience in the IT industry. He has an excellent track record in IT management, network and systems management, and software development. He has worked in several roles in South Africa and United Kingdom. He obtained his PhD from the University of Southern Queensland. Kishore has spent the past four years researching and developing methods and procedures for fraud detection in SAP systems. His work involved designing and building a methodology for fraud detection based on analysis of patterns or signatures. He is presently employed as a lecturer in Accounting Information Systems at Griffith University. |
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## Healthcare fraud detection: A survey and a clustering model incorporating Geo-location information

| Abstract | Health care has become a major expenditure in the US since 1980. Both the size of the health care sector and the enormous volume of money involved make it an attractive fraud target. Therefore, effective fraud detection is important for reducing the cost of health care services. In order to achieve more effective fraud detection, many researchers have attempted to develop sophisticated antifraud approaches incorporating data mining, machine learning or other methods. |
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| | This introduce some preliminary knowledge of U.S. health care system and its fraudulent behaviors, analyzes the characteristics of health care data, and reviews and compares currently proposed fraud detection approaches using health care data in the literature as well as their corresponding data preprocess methods. Also a novel health care fraud detection method including geo-location information is proposed. |

| Bio | Miklos A. Vasarhelyi, the KPMG Distinguished Professor of Accounting Information Systems, has done extensive government and business teaching and consulting work throughout China, Europe, South America, and the United States. Prof Vasarhelyi is considered the "Godfather of Continuous Auditing" and works with the AICPA on many digital accounting issues such as continuous audit/monitoring, XBRL, and the audit data standard. Having written over 20 books and 200 journal articles, Vasarhelyi has an extensive research portfolio in a variety of topics, including expert systems, the Internet, ecommerce, intelligent agents, and accounting systems. Many large international organizations including AT&T, Chase Bank, Eli Lilly, GE, Johnson & Johnson, Metlife, CA Technologies, P&G, Itau Unibanco and Volvo, among others have engaged Vasarhelyi to partner / advise and/or teach executive programs. Prof. Vasarhelyi has directed over 40 dissertations and at Rutgers works mainly with PhD students. |
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## IT Support for Regulatory Compliance of Business Processes

| Abstract | In this paper we propose an ITC (Information and Communication Technology) approach to support regulatory compliance for business processes, and we report on the development and evaluation of a business process compliance checker called Regorous, based on the compliance-by-design methodology proposed by Governatori and Sadiq (The Journey to Business Process Compliance). |
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| Bio | Professor Guido Governatori is a Senior Principal Research at NICTA where he leads the research on business process compliance. He received his PhD in Computer Science and Law from the University of Bologna in 1997. Since then he has held academic and research positions at Imperial College, Griffith University, Queensland University of Technology, the University of Queensland, and NICTA.

He has published more than 200 scientific papers in logic, artificial intelligence, and database and information systems. His current research interests include modal and nonclassical logics, defeasible reasoning and its application to normative reasoning and e-commerce, agent and multi-agent systems, and business process modeling for regulatory compliance.

He is the editor in charge of the agents and norms section of the Artificial Intelligence and Law journal, co-editor of the Deontic Logic Corner of the Journal of Logic and Computation. He has served as co-chair of the OASIS LegalRuleML technical committee. |

## Continuous Monitoring at Metcash

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| Abstract | Continuous Monitoring is widely canvassed in academic and professional literature. The gap between practice and reality is quite large. There are relatively few well realised Continuous Monitoring applications in Australia, or even on a global basis.
Metcash has developed an extensive CM environment with more than 80 CM applications running on a daily, weekly and monthly basis. All of the CM applications are fully automated with the results being delivered to end users via presentation software, and the exceptions being tracked through to resolution and subsequent analysis.

Metcash runs its CM applications across most areas of the business with several the applications being unique. There are a range of challenges involved in delivering such an extended service to the business. These challenges include resourcing, gathering political support, data gathering and ensuring a reliable and robust environment.
Metcash has extended the range of CM applications to include the development of operational dashboards of key risk indicators. The CM "engine" is used to collect data from various sources and then populate dashboards that are delivered to executive management via IPad. |
| Bio | Glen is the Group Business Assurance Manager at Metcash Ltd.  He is a chartered accountant, a certified Internal Auditor and a certified information systems auditor.  He has degrees in business, finance and computing.

Metcash has been developing its Continuous Monitoring capabilities under his leadership for several years.  The Metcash efforts have been recently recognised by being awarded the ACL Impact Award for Asia Pacific for two consecutive years in 2011 and 2012.  The ACL Impact Award recognises excellence in Continuous Monitoring. |

## Identifying XBRL's Data information Quality Dimensions using Text Mining and Topic Analysis

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| | Given the financial information users' expectation for the data information quality (DIQ) of eXtensible Business Reporting Language (XBRL) improvement have been increased in recent years, it is still unclear what are the DIQ dimensions applicable to XBRL. We study this question by exploring professional and academic discussions in LinkedIn groups. Prior research in XBRL has derived the DIQ dimensions from the information systems and the accounting literature. The findings of the research, |

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| Abstract | however, only evaluate several dimensions of XBRL's DIQ (e.g. ease of understanding, value added, and relevancy, reliability, understandability, timeliness and comparability).<br><br>They have yet to provide a framework to asses XBRL's DIQ. This paper explores the discussion occurred on LinkedIn to help obtain the insights into what DIQ dimensions have attracted XBRL users. Text mining and topic analysis using the sample data from the three largest XBRL LinkedIn groups were conducted to find the relevant DIQ dimensions for XBRL. This study proposes 14 dimensions that are appropriate to assess XBRL's DIQ, that is, 14 dimensions that appropriate to assess XBRL's DIQ, that is, access security, accessibility, accuracy, comparability, completeness, consistency, ease of understanding, interpretability, predictability, prudence, relevancy, reliability, timeliness, transparency, validity, value added. The findings of this study is expected to help future research to understand the XBRL's DIQ that can be empirically investigated. |
| Bio | Arif Perdana is currently a PhD student at the University of Queensland Business School, The University of Queensland. His research interests are in the fields of eXtensible Business Reporting Language (XBRL), data and information quality, accounting judgement and decision making, and IT/IS adoption. His research has been published in the International Journal of Business Information Systems, Alliance Journal of Business Research and in various conference proceedings including 5th Annual Pre-ICIS 2013 Workshop on Accounting Information Systems (forthcoming), Pacific Asia Conference on Information Systems 2013, The 29th World Continuous Auditing & Reporting Symposium (forthcoming), The International Research Symposium in Service Management 2 (IRSSM-2), The International Conference on Informatics for Development 2011 (ICID), and Society of Interdisciplinary Research 2012. |

## Reimagining Audit | The Impact of the Tabloidization of Big Data

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| Abstract | The exploits of Edward Snowden and others has raised the collective consciousness of big data to a new level.<br><br>This is the moment that big data went mainstream, this is the moment that it is on the front page of every paper in the world talking about things such as meta data, talking about the ability to not look at content but to look at trends.<br><br>It is the moment when big data went tabloid.<br><br>What are the implications for audit from such a shift in public awareness?<br><br>What now will be the expectations of stakeholders on the audit function?<br><br>What is an audit going to look like in 5, 20 and 50 years?<br><br>And who will have the skill sets to take audit on its journey?<br><br>This is the most exciting time to be an auditor in 150 years - are we ready for the changes that are just about to come? |
| | Tom McLeod is one of the world's leading Chief Audit Executives. He was most recently the Global Head of Internal Audit for Rio Tinto, one of the world's largest mining companies. |

| Bio | He has extensive governance, risk and audit experience in telecommunications, utilities, mining, insurance, manufacturing and professional services during which time he has reported directly to Board Committee, Chief Executive Officer, Chief Financial Officer and Chief Operating Officer levels.<br><br>He has extensive work experience in Australia, Asia, United Kingdom and North America and broader work experience in Europe and India. |
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## Leveraging Continuous Audit to Enhance Synergies between Security & Audit

| Abstract | In business & technology today leaders face the challenge of managing competing priorities, with limited resources and an ever expanding risk environment. Continuous Audit is a methodology that can be used to help management sift through all of the relevant data to make more informed decisions and apply resources more efficiently. A robust automated continuous audit program allows organizations to perform auditing activities, such as control and risk assessments, on a more frequent basis and helps to automate the identification of exceptions or anomalies, analyze patterns within data, review trends, and test controls, among other activities. Thus driving more efficiencies and alignment between Audit teams and Information Security & Technology teams.<br><br>This interactive discussion will discuss the tools and steps necessary to implement automated and continuous monitoring (CM) of business processes, transactions and controls. Learn from a Certified Fraud Examiner and Auditor who has implemented data analytic solutions for Anti-Corruption and other key areas within the Corporation. The discussion will cover:<br><br>• Value proposition for implementing CM for both Audit and IT/IS<br>• Data Analytics and Exception Management<br>• Dashboard solutions<br>• Best Practices and Lessons Learned |
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| Bio | Jeff Willingham is a Principal Information Systems Analyst with Lockheed Martin Corporation and has more than 20 years of experience as an Internal Auditor. Jeff established and is the Team Lead for Lockheed Martin's Continuous Auditing group. Jeff's professional experience includes work in Technology, Public Accounting, and the Banking Industry. Jeff has a Bachelor of Science (BS) in Accounting from Berry College and an MBA from Liberty University. Jeff is a Certified Fraud Examiner (CFE), Certified Public Accountant (CPA), Certified Internal Auditor (CIA), and a Certified Information Systems Auditor (CISA).<br><br>Jeff is a member of ACL's Customer Advisory Board and is a guest lecturer in the Rutgers University MBA Program and Lockheed Martin's Center for Leadership Excellence. In November 2013, Jeff was selected to present at the 29th Annual World Continuous Auditing & Reporting Symposium in Brisbane, Australia. |
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## Text Analytics for the External Audit

Text analytics in accounting research is growing at a rapid pace, but anecdotal evidence suggests the auditing profession has yet to firmly take hold of the latest concepts and implement them. This paper proposes numerous scenarios for implementing text analytics during the different phases of the audit.

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| Abstract | Specifically, text analytics techniques will be discussed in each phase of the audit including pre-engagement activities, planning, compliance testing, and substantive testing activities.<br><br>To support this, two use cases demonstrate how text mining could inform auditors during the planning and pre-engagement phases of the audit. This first use case demonstrates what type of meta-information can be extracted from the text of the Management Discussion and Analysis (MD&A) section of the SEC Form 10-K using text mining and dictionaries developed by accounting and finance researchers. In this example, positivity, negativity, uncertainty, and litigious terms are tracked over a five-year period for a major software company and suggestions are given to auditors on how to use this information.<br><br>The second use case is an analysis of the Risk Factors section of the SEC Form 10-K for three technology firms. For one firm, changes in this section year over year indicate whether or not new risks are disclosed. For the other two firms, the risks are compared to assess whether or not similar companies disclose similar risks. |
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## The Messy Matters of Continuous Assurance: Preliminary findings from six Australian case studies

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| Abstract | The potential benefits of and business imperatives for continuous assurance (CA) are now widely acknowledged. However, uncertainty remains about how CA may be effectively implemented at a theoretical and practical level. The aim of this paper is to report on the first stage of a long-term comparative case study research project examining the adoption and implementation of CA in Australian organizations. The research supports three goals, to inform strategies for creating CA capability, increase success of CA initiatives and advance theory. Key preliminary findings emerging from the comparative analysis of six case studies include the: multifaceted and changing nature of CA; the importance of developing and leveraging data analytics capabilities, managing exceptions and multi-stakeholder interactions; the challenges of messy data, complex IT environments and understanding information needs; and the need for senior management support and a strong business case to progress CA initiatives. |
| Bio | Catherine is a Senior Lecturer at The University of Sydney Business School in the Business Information Systems Discipline. Her research interests focus mainly on the complex and changing relationships between technical innovation, governance and accountability systems and organisational change. Catherine's current research project is a case based study on the adoption, implementation and evaluation of continuous auditing and continuous monitoring in Australian organisations.<br><br>She has extensive teaching, curriculum development and program management experience in a wide range of information systems subject areas including information governance, information protection and assurance, accounting information systems and project management. Prior to joining academia, Catherine was an accountant in the financial services industry. |

## Real life experiences with Continuous Control Monitoring on Masterfile Data

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| Abstract | • Why masterfiles and not transactions? learn that masterfile exceptions are quite often the root cause of transactional errors/fraud |
| | • What and how often should we monitor masterfiles? |
| | • Outcomes and results, and what we do with exceptions |
| | • How to get management attention on masterfile exceptions |
| | • How Audit can get Kudos from mere masterfile exception reporting CCM by use of dashboards |

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| Bio |  | Pat Culpan has been working in the Queensland Health Internal Audit Unit for 17 years. For the past three years of this in the role of Audit Manager – Data Analytics, and for the four years prior to that Pat was acting in the Audit Director's role. When Pat established the audit data analytics unit in Queensland Health, it was the first such dedicated unit in the Queensland Government. Over the three years this unit has grown in its capacity and maturity with numerous automated scripts running out of business hours resulting in continuous controls monitoring reports being available for business units to review and action upon their arrival at work the following day. There are a number of business units within Queensland Health that rely on the analytics provided by the audit unit.

Outside of work Pat has a passionate desire for the sport of cricket, where he is currently the Executive Chairman and Life Member of the largest cricket club in Australia. However his major input into the sport over the last 35 years has been as scorer and statistical analyst where he has worked with a number of international teams across the globe |
| |  | Jeet Kadam has worked as a data analyst in Queensland Health Internal Audit Unit for the past three years. With knowledge in computer programing and a Masters in professional accounting, Jeet joined Queensland Health to fulfil the dream that Pat and Bob McDonald (Chief Governance Officer) had. That dream was, "Data can tell a story and we can use the story to improvise the system".

Jeet has played a vital role in the building and implementation of CCM in Queensland Health where his roles have included, but is not limited to, liaising with management at different levels and determine where CCM can be implemented, creating and automating scripts, undertaking follow ups on exceptions generated and creating management reports and dashboards. |

## Exploring the Impact of Shared Domain Knowledge on Strategic Alignment in the Australian Public Sector

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| | In this age of ever-increasing information technology (IT) driven environments, governments/or public sector organisations (PSOs) are expected to demonstrate the business value of the investment in IT and take advantage of the opportunities offered by technological advancements. Strategic alignment (SA) emerged as a mechanism to bridge the gap between business and IT missions, objectives, and plans in order to ensure value optimisation from investment in IT and enhance organisational performance. |

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| Abstract | However, achieving and sustaining SA remains a challenge requiring even more agility nowadays to keep up with turbulent organisational environments. The shared domain knowledge (SDK) between the IT department and other diverse organisational groups is considered as one of the factors influencing the successful implementation of SA. However, SDK in PSOs has received relatively little empirical attention. This paper presents findings from a study which investigated the influence of SDK on SA within organisations in the Australian public sector. The developed research model examined the relationship of SDK between business and IT domains with SA using a survey of 57 public sector professionals and executives. A key research contribution is the empirical demonstration that increasing levels of SDK between IT and business groups leads to increased SA. |
| Bio | Paul Barnes teaches and carries out research into organisational vulnerability and resilience as well as risk & crisis management and business continuity planning, across public and private sectors, at the Queensland University of Technology, Brisbane. He has completed projects for the Pacific Economic Cooperation Council (PECC) and the Asia-Pacific Economic Cooperation (APEC) economies. He has given keynote presentations nationally and internationally for diverse groups such as the Institution of Fire Engineers, the Australian Academy of Science, and the International Risk Governance Council. |
| | Loai Al Omari is an Information Assurance and IT Governance expert currently working for the Queensland Government in Brisbane, and has over 12 years' experience in the IT industry as a specialist in governance, risk management, and information security. He holds a Master of IT from the Queensland University of Technology, a Post-Graduate Certificate in Public Sector Management from Flinders University, and is certified as a CISM, CGEIT and CRISC. Loai is also a Ph.D. Candidate and his research focuses on the use of COBIT 5 for the audit of IT Governance to ensure the optimal utilisation of IT to support and sustain business objectives in the public sector. |

## Enterprise Assurance Architecture - Leveraging Continuous Assurance

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| Abstract | Presentation Objectives

To identify potential role Continuous Assurance (CA) can play in Enterprise Assurance Provisioning

To illustrate how COBIT 5 framework can be leveraged in positioning CA as an integrator in Enterprise Assurance Provisioning

To discuss a case for Enterprise Assurance Architecture with CA as an enabler

Summary

Leveraging COBIT 5 framework and embedding CA at enterprise governance level can result in added value to enterprises by creating an assurance provisioning architecture that can improve Governance, Risk Management and Compliance management across the enterprise.

This presentation reviews COBIT 5 framework and CA in reference to assurance provisioning in the enterprise and how embedding CA in the enterprise assurance framework can lead to delivery of an integrated, effective and combined assurance to multiple internal and external stakeholders. |
| | Jim's research interests include management control, risk management and management decision-making applied to diverse environments that include financial services, |

| Bio | | emergency services, philanthropy and sustainaibility. Accounting history in the context of significant social movements such as migration and organised labour is also a strong focus. |
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| | | Prior to his position at the University of Sydney, Jim had over 20 years business experience in general management, service operations, accounting, consulting, and Information Technology roles, largely in the Financial Services industry. He has worked for and with a number of leading Australian and Global financial institutions and consulting organisations including Cap Gemini, KPMG, GE Money, Citibank, Abbey National, Westpac and NAB. |
| | | Shrikant has over 25 years of banking experience in core banking technology, Information Risk, IT Security, IT Audit and Compliance. Shrikant has held various technology, risk and audit positions over a 20 years career with Citigroup across Europe, Middle East & Africa, Australia, Asia Pacific. Shrikant also held risk management and security consulting responsibilities with two of the big four Australian banks. |
| | | At Citigroup Shrikant project managed technology innovations in self-service and video banking kiosks, wireless mobile banking, |
| | | Internet banking and core banking transformation. He has also led audit innovations in the areas of remote auditing and CAATs, set up and managed compliance and control framework for Citigroup's global sourcing operations based in India. |