ICIQ-2011

Adelaide, Australia

Proceedings of the 16ᵗʰ International Conference on Information Quality

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International Conference on Information Quality 2011

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Hosted by University of South Australia

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16th International Conference on Information Quality (ICIQ 2011) Sponsors

17th International Conference on Information Quality (ICIQ 2012)

FOREWARD

WELCOME to the **16th** *International Conference on Information Quality* (ICIQ-2011). This year, as in previous years, the international information quality community is gathering to share ideas, research and improvements in information quality. Local, national and international participants have shared over a decade's worth of great papers, talks, outstanding research and practice; with this event we will continue the high level sharing. An applied, multi-disciplinary field such as Information Quality demands interaction and collaboration between practitioners and researchers. The ICIQ Conference has been instrumental in establishing a premier forum for the community of IQ researchers and practitioners.

The 16th ICIQ conference is hosted by the School of Computer and Information Science, University of South Australia, which is the largest information and communications technology (ICT) tertiary provider in South Australia, and one of the largest, most dynamic and exciting schools in Australia.

We wish to extend our acknowledgement to all conference participants and thank them for their contributions. The Call for Paper response was extraordinary in both quantity and quality. The collaboration between practitioners and researchers continues with each extending the boundaries of quality research and practice. We thank you all for your contribution in establishing IQ as a multi-disciplinary field and pushing research to be even more useful and practice-oriented. This year, for the first time, we have included a poster session. We hope that this innovation will be of benefit to the participants and that it will become an important aspect of future conferences.

The *ACM Journal of Data and Information Quality (JDIQ)* clearly establishes information quality as an important area of information technology research. Best paper and other high quality papers accepted at ICIQ were recommended for fasttracking to JDIQ. We owe a debt of gratitude to the Editors-In-Chief Yang Lee of Northeastern University and Stuart Madnick of MIT. Without their tireless effort this journal would not have been possible and would not be as viable as it is today.

Again this year an overall "best paper" will be selected and awarded. A $1,000 prize accompanies this award. We appreciate the work of the Best Paper Award Committee, reviewing and judging recommended papers. *The Donald Ballou & Harold Pazer IQ Ph.D. Award* will also be given.

We thank all the members of the program committee who worked diligently reviewing papers and providing valuable feedback to the authors. Their rigorous and timely reviews contributed greatly to this year's exciting program. Again, without the tireless efforts of Richard Wang and his team this conference would be impossible. Thanks to Richard Wang for overseeing all stages and ensuring adherence to time frames. Finally, we wish to thank all the authors for their high quality submissions and patience with delays and system glitches.

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ICIQ 2011 Proceeding

University of South Australia, City West Campus, Hawke Building

Day 0	November 18th - Friday
13:00~14:00	Workshop: Have a think about Information Quality Room: ITIS Innovation Studio, School of Computer and Information Science, 27 North Tce, Adelaide, SA

Day 1	November 19th - Saturday
	Conference Registration
8:45 ~ 9:00	*Opening Ceremony*
9:00 ~ 9:45	Thomas C. Redman (President), *Navesink Consulting Group* Keynote: A Practitioner's View of the Really Big Data Quality Research Issues Room: Bradley Forum (H5-02)

	Track 1 IQ Methods Room: H6-09 Session Chair: Grant Robinson	Track 2 Industry Room: H6-11 Session Chair: Michael Töns	Track 3 Concepts and Research Room: H6-10 Session Chair: Ken Self	Track 4 IQ Cases Room: H6-12 Session Chair: Tom Redman	Track 5 How to succeed in IQ PhD Room: H6-03 Session Chair: Mukesh Mohania
9:45 ~ 10:45	César Guerra-García, Ismael Caballero, Laure Berti-Equille, & Mario Piattini *Daq_Uwe: A Framework for Designing Data Quality Aware Web Applications*	Lwanga Yonke CI *The Skills of the Information/Data Quality Professional*	Shazia Sadiq, Marta Indulska and Vimukthi Jayawardene *Research and Industry Synergies in Data Quality Management*	Anne Chistine Le Dû & François De Corbière *IQ as an Enabler of the Green and Collaborative Supply Chain*	Alexander Borek *A Process For Total Information Risk Management (TIRM) in Asset Intensive Organisations*
	Erwin Folmer & Joris Van Soest *Towards A Quality Model for Semantic IS Standards*	Jay Barua *Enterprise Architecture Led Information Quality Strategy - "Two Sides of the Same Coin"*	Yinle Zhou & John Talburt *Entity Identity Information Management (EIIM)*	Ronald Mead & Stephen Kennett *Assessment of Information Quality Used in Advice to the Royal Australian Navy*	Discussion
10:45 ~ 11:00	*Tea Break*				

11:00 ~ 11:45	**Robert Hillard**, *Partner and National Leader of Technology Consulting, Deloitte* Keynote: What does the next generation of business models mean for information quality? Room: Bradley Forum (H5-02)			
	Track 1 **IQ Methods** Room: H6-09 Session Chair: John Talburt	**Track 2** **IQ Theory and Practice** Room: H6-11 Session Chair: Michael Mielke	**Track 3** **IQ Measurement** Room: H6-03 Session Chair: Phil Woodall	**Track 4** **IQ Cases** Room: H6-12 Session Chair: Stuart Ainsworth
11:45 ~ 12:45	Sandra Geisler, Sven Weber and Christoph Quix. Ontology-Based Data Quality Framework for Data Stream Applications	Elaine George and Jing Gao. Relevance of Information Quality Studies in Information Systems Education in Australia	Morgan Ericsson, Anna Wingkvist and Welf Löwe. A Software Infrastructure for Information Quality Assessment	Alexander Borek, Ajith Kumar Parlikad and Philip Woodall. Towards a Process for Total Information Risk Management
	Samira Si-Said Cherfi, Jacky Akoka and Isabelle Comyn-Wattiau. Federating Information System Quality Frameworks Using a Common Ontology	Zbigniew J Gackowski. Strategic Alignment of Information Quality: Academic and Practical Views	Naiem Yeganeh, Shazia Sadiq, Mohamed Sharaf and Ke Deng. Query Result Quality: Efficient Profiling and Estimation	David Becker. Trusted Data Markets and the Role of Data Quality
12:45 ~ 13:45	*Network lunch*			
13:45 ~ 14:30	**Mukesh Mohania** (STSM), *IBM,* Keynote: Cloud Computing and Data Quality Services Room: Bradley Forum (H5-02)			
	Track 1 **IQ Methods** Room: H6-09 Session Chair: Ismael Caballero	**Track 2** **IQ Theory & Practice** Room: H6-11 Session Chair: Shazia Sadiq	**Track 3** **IQ Methods** Room: H6-10 Session Chair: Maria Espona	**Track 4** **IQ Cases** Room: H6-12 Session Chair: Shirlee-Ann Knight
14:30 ~ 15:30	Fei Chiang & Renee J. Miller. *Active Repair of Data Quality Rules*	Muhammad Suhaizan Sulong, Andy Koronios, & Jing Gao *Information Quality Activities within the Industry Initiative of Service-Oriented Architecture Implementation*	Tamraparni Dasu, & Ji Meng Loh *Auditing Data Streams for Correlated Glitches*	Soumaya Ben Hassine-Guetari, & Brigitte Laboisse *Managing Multisource Databases: Between Theory and Practice*
	Alexander Borek, Philip Woodall, Martin Oberhofer, & Ajith Kumar Parlikad *A Classification of Data Quality Assessment Methods*	Frank Beer, & Kai-Uwe Baryga *A Hierarchical Clustering Approach to Support the Data Verification Process in Master Data Management*	Olufade Falade Williams Onifade, & Oladeji Patrick Akomolafe *A Fuzzy Search Model for Dealing with Retrieval Issues in Some Classes of Dirty Data*	Jochen Kokemüller *Iquate: Modeling the Causes and Impacts of Information Quality*

15:30 ~ 16:00	*Tea Break*
16:00 ~ 16:45	**Grant Robinson** (Scientist), *NSW Office of Water* Keynote: Employing ISO9001 to improve water information quality in New South Wales Room: Bradley Forum (H5-02)
16:45 ~ 17:00	Awards and Promotion of ICIQ 2012
18:00 ~ 21:00	Conference dinner - Adelaide Zoo

Day 2	November 20th - Sunday
9:00 ~ 9:45	**Ken Self** (Data Strategy and Standards Manager), *Shell Australia* Keynote: Data Quality in Shell:Building IQ Knowledge and Skills Room: Bradley Forum (H5-02)

	Track 1 IQ Methods	**Track 2** Industry	**Track 3** IQ Methods	**Track 4** IQ Cases
	Room: H6-09 Session Chair: Eui-Soo Choi	Room: H6-11 Session Chair: Zoran Bolevich	Room: H6-10 Session Chair: Lwanga Yonke	Room: H6-12 Session Chair: Steve Kennett
9:45 ~ 10:45	Olukayode Isaac Osesina, Marie-Astrid Cartron-Mizeracki, & John Talburt *A Patient-Oriented Approach to Comprehensive Health Information Quality Improvement*	~~Piyush Malik~~ ~~*Organizational Elements of Information Quality: The 3 C Principle: Communication, Collaboration and Commitment (Industry)*~~ **CANCELLED**	Sertan Kaya, Mariofanna Milanova, & John Talburt *Subjective Image Quality Prediction based on Neural Network*	Yusuf Yiliyasi, & Daniel Berleant *World Oil Reserves Data: Information Quality Assessment Analysis (Case)*
	Roman Lukyanenko, & Jeffrey Parsons *Rethinking Data Quality as an Outcome Of Conceptual Modeling Choices*	Helen Tadesse Moges, Karel Dejaeger, Wilfried Lemahieu, & Bart Baesens *Data Quality for Credit Risk Management: New Insights and Challenges*	Ahmed Abuhalimeh, Mihail Tudoreanu, & Thikra Mustafa *Subjective Evaluation of Believability in Visualization of Data*	Ali B Aljaafreh *The Relationship Between Information Quality and National Cultural in Jordan: Conceptual Framework*
10:45 ~ 11:15	*Tea Break*			

11:15 ~ 12:00

Zoran Bolevich (Director), *Demand & Performance Evaluation Branch Health System Quality, Performance & Innovation Division NSW Health*

Keynote: A Journey Towards Enhanced Data Quality in Healthcare
Room: Bradley Forum (H5-02)

Track 1 IQ Methods	Track 2 IQ Measurement	Track 3 IQ Concept	Track 4 IQ Cases
Room: H6-09 Session Chair: Ronald Mead	Room: H6-03 Session Chair: Shazia Sadiq	Room: H6-10 Session Chair: Philip Woodall	Room: H6-12 Session Chair: Tina Du

12:00 ~ 13:00

Track 1	Track 2	Track 3	Track 4
Liguo Yu, Dr. Srini Ramaswamy, & Anil Nair *Using Bug Reports as a Software Quality Measure*	Jianjun Cao, Xinchun Diao, Ning Zhang, & Ting Wang *An Approach using Hidden Markov Model for Estimating and Replacing Missing Categorical Data*	Pascal Wichmann, Alexander Borek, Robert Kern, Philip Woodall, Ajith Kumar Parlikad, & Gerhard Satzger *Exploring The "Crowd" as Enabler of Better Information Quality*	Shirlee-Ann Knight *The Combined Conceptual Life Cycle Model of Information Quality: User Perceptions of IQ on the Web*
Fumiko Kobayashi, Eric Nelson, & John Talburt *Design Consideration For Identity Resolution In Batch And Interactive Architectures.*	Yuriy Verbitskiy, & William Yeoh *Data Quality Management in a Business Intelligence Environment: From the Lens of Metadata*	acQuire Technology Solutions presentation	Jia Tina Du, & Abu Shamim Mohammad Arif *Judgment of Information Quality During Information Seeking and Use in The Workplace: A Case Study Of Marketing Professional (Industry)*

13:00 ~ 13:15 — *Closing*

13:15 ~ — *Network lunch*