



THE UNIVERSITY OF  
MELBOURNE

# #CISDC17

School of Computing and Information Systems  
5th Annual Doctoral Colloquium  
19 July 2017

## Programme



@cis\_dc



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[cis.unimelb.edu.au/colloquium](http://cis.unimelb.edu.au/colloquium)

## LOCATION GUIDE



**Peter Hall Building**  
JH Michell Theatre  
Russell Love Theatre  
Evan Williams Theatre  
Room 2.13



**Sidney Myer Asia Centre**  
Yasuko-Hiraoka Myer Room



## KEYNOTE ADDRESS

*Customer is not a dirty word  
(and why you need them to do research that  
makes a difference)*

**Dr Sarah Dods**

General Manager for eHealth Solutions with  
Telstra Health



# SCHEDULE

08:30–09:00	<b>Registration</b> Foyer – JH Michell Theatre Peter Hall Building		
09:00–10:00	<b>Welcome and Keynote Address</b> JH Michell Theatre Peter Hall Building		
10:00–10:25	<b>Google Morning Tea Break</b> Yasuko-Hiraoka Myer Room Sidney Myer Asia Centre		
10:30–12:25	<b>Paper Session 1A</b> <i>Data &amp; Knowledge</i> Evan Williams Theatre Peter Hall Building	<b>Paper Session 1B</b> <i>People &amp; Organisations</i> Russell Love Theatre Peter Hall Building	<b>Paper Session 1C</b> <i>Platforms &amp; Systems</i> Room 2.13 Peter Hall Building
12:30–13:30	<b>Lunch Break</b> (not provided)		
13:30–14:45	<b>Paper Session 2A</b> <i>Data &amp; Knowledge</i> Evan Williams Theatre Peter Hall Building	<b>Paper Session 2B</b> <i>Data &amp; Knowledge</i> Russell Love Theatre Peter Hall Building	<b>Paper Session 2C</b> <i>Platforms &amp; Systems/ People &amp; Organisations</i> Room 2.13 Peter Hall Building
14:45–15:10	<b>Melbourne School of Engineering Afternoon Tea Break</b> Yasuko-Hiraoka Myer Room Sidney Myer Asia Centre		
15:15–16:10	<b>Three-Minute Talk Session</b> JH Michell Theatre Peter Hall Building		
16:15–17:10	<b>Poster Session and Evening Refreshments</b> Yasuko-Hiraoka Myer Room Sidney Myer Asia Centre		
17:15–18:00	<b>Award Presentations and Closing</b> Yasuko-Hiraoka Myer Room Sidney Myer Asia Centre		

## SESSION DETAILS

### Paper Session 1A: Data and Knowledge

1. Fei Liu, Trevor Cohn, Timothy Baldwin  
*Memory-Enhanced Conditional Random Fields for Thread Discourse Structure Prediction*
2. Yitong Li, Trevor Cohn, Timothy Baldwin  
*Multi-task Adversarial Representation Learning for Text Classification*
3. Nitika Mathur  
*Sequencing effects in Natural Language Processing annotations*
4. Aili Shen, Jianzhong Qi, Rui Zhang  
*Quality Assessment of Wikipedia Articles*
5. Neil Marchant, Benjamin Rubinstein  
*OASIS: An efficient evaluation method for entity resolution*
6. Milad Chenaghlou, Masud Moshtaghi, Christopher Leckie, Mahsa Salehi  
*Data Stream Clustering in Non-Stationary Environments*

### Paper Session 1B: People and Organisations

1. Dana Mckay  
*What I talk about when I talk about (library shelf) browsing*
2. Melissa J. Rogerson  
*Boardgames Rule(s)*
3. Hasan Shahid Ferdous  
*Forget the Salt, Pass the iPad: Technology at Mealtimes*
4. Luthfi Ramadani, Sherah Kurnia, Christoph Breidbach  
*An Interdisciplinary Perspective of Nation-Wide Health Information Systems Implementation in Developing Countries*
5. Jongkil Jeong, Sherah Kurnia, Daniel Samson and Sara Cullen  
*The psychological contract and its impact on relationship quality in ICT outsourcing*

### Paper Session 1C: Platforms and Systems

1. Eman Alatawi, Tim Miller, Harald Sondergaard  
*Combining Metamorphic Testing and Dynamic Symbolic Execution for effective test inputs generation*
2. Li Li, Sarah Erfani, Christopher Leckie  
*A Novel Contrast Pattern Mining Methods for Analyzing Retail Datasets*
3. Ronal Singh  
*Communication Decisions with Shared Mental Models*
4. Muhammad Hafizhuddin Hilman, Maria Alejandra Rodriguez, Rajkumar Buyya  
*Budget-constrained Resource Provisioning and Scheduling Algorithms for Scientific Workflow in Cloud Environments*
5. Farzad Khodadadi  
*Power-Efficient Resource Provisioning in Hybrid Datacentres Using Micro Servers*
6. Muhammed Tawfiqul Islam, Shanika Karunasekera, Rajkumar Buyya  
*Deadline-Aware Cost-Optimized Cloud Resource Estimation for Big Data Applications*

## Paper Session 2A: Data and Knowledge

1. Qingyu Chen, Justin Zobel, Karin Verspoor  
*Biocuration experts on the impact of duplication and other data quality issues in biological databases*
2. Xin Li, Kathleen Gray, Karin Verspoor  
*Using Learning Analytics to Understand Health Professionals' Informal Learning in Online Social Networks*
3. Yixin Xu, Jianzhong Qi, Renata Borovica-Garjic, Yu Sun, Rui Zhang  
*Reverse Nearest Neighbour Heatmap in Spatial networks*
4. Jiayuan He, Jianzhong Qi, Rui Zhang  
*Efficient Indexing and Querying of Periodic Data*

## Paper Session 2B: Data and Knowledge

1. Stephan Gloeckner, Salla Eliisa Toikkanen, Richard Sinnott  
*The Trade-Offs in Data Trustworthiness and Data Completeness in Clinical Research Registries*
2. Yang Lu, Richard Sinnott, Karin Verspoor, Udaya Parampalli  
*Effective Preservation of Privacy During Record Linkage*
3. Mahtab Mirmomeni, Lars Kulik, James Bailey  
*Activity recognition of post-surgery patients through data analytics on time-series data from wearable sensors*
4. Sehrish Kanwal, Andrew Lonie, Richard Sinnott  
*Reproducibility of Computational Genomic Workflows*

## Paper Session 2C: People and Organisations/Platforms and Systems

1. Sarah Webber, Wally Smith, Marcus Carter, Frank Vetere  
*Zoo Visitors Kinecting with Orangutans*
2. Deepti Aggarwal  
*SoPhy: A Wearable Technology for Effective Video Consultations of Physiotherapy*
3. Aleck Macnally, Nir Lipovetzky, Adrian Pearce, Miquel Ramirez  
*Planning for Transparency*
4. Sadegh Motallebi, Ramamohanarao Kotagiri, Egemen Tanin  
*Towards a Unified System for Navigation Advice and Traffic Management*

## Three-Minute Talk Session

1. **Peter Eze**  
*Spread Spectrum Medical Image Watermarking in the Spatial Domain*
2. **Oleksii Vedernikov**  
*Stochastic route planning for hitchhiking*
3. **Yiqing Zhang**  
*Understanding publications in researchers' homepages*
4. **Niels van Berkel**  
*Longitudinal Human and Digital Sensing Using Mobile Technology*
5. **Romina Carrasco**  
*Empowering my avatar to be myself*
6. **Patrick Vicky**  
*Authentication through Message Hiding in Frequency Domain*
7. **Timoci O'Connor**  
*An exploration of mobile phone functionality, feedback and associated factors that influence outcomes of public health interventions*
8. **Diego De Uña**  
*Minimizing Landscape Resistance for Habitat Conservation*
9. **Yousef Kowsar**  
*Detecting Interval of Recurrence in Time Series*
10. **Peter Chan**  
*Thermography as a Novel Modality for Contactless Patient Monitoring*
11. **Mohammad Oloomi, Thomas Conway, Justin Zobel**  
*A More Accurate DNA Sequencing with Multimapping Resolution*
12. **Humza Naseer**  
*Security Analytics*
13. **Gerardo Luis Dimaguila**  
*Influence of Person-Generated Health Data on Patient Attitudes or Behaviours: A Kinect-type Neuro-rehabilitation Programme*
14. **Adel Foda**  
*Grounded Knowledge for Language Understanding*
15. **Anitya Nijhara**  
*Group dynamics in an Information Security Risk Management context: a study of Risk Perceptions*
16. **Fraser Allison**  
*How Do We Talk to Virtual Characters?*

## Poster Session

1. **Craig Horne, Sean B. Maynard, Atif Ahmad**  
*A Poster on Information Security Strategy Model*
2. **Mohammadhossein Sherkat, Tim Miller, Antonette Mendoza, Rachel Burrows**  
*Emotional Requirements in People-Oriented Software Engineering*
3. **Ziying Yang**  
*Pairwise Preference Relevance Judgments from Crowdsourcing*
4. **Sadia Nawaz, James Bailey, Gregor Kennedy**  
*Sensor-free confusion detection in digital learning environments*
5. **Chenxu Zhao, Rui Zhang, Jianzhong Qi**  
*Web Document Clustering Based on Structure and Style Similarity*
6. **Sami Alkhatib**  
*Privacy and the Internet of Things (IoT) monitoring solutions for older adults: A systematic review*
7. **Zhanna Sarsenbayeva**  
*Situational Impairments to Mobile Interaction*
8. **Namrata Srivastava, James Bailey, Sarah Erfani**  
*Exploring Eye-Tracking technology in predicting subjective states of students in a digital learning environment*
9. **Unni Krishnan, Alistair Moffat, Justin Zobel**  
*What is "Query Auto Compl"?*
10. **Abdulaziz Murad**  
*Design Considerations for a Virtual Community of Practice for Health Practitioners: A Learner Centred Design Approach*
11. **Joshua Newn**  
*Investigating Intent Recognition Through Gaze Awareness in User Interfaces*
12. **Atlarelang Basetsana Kesilwe**  
*Evaluating the impact of IT in an Emergency Department through a time based comparison of IT based clinical activities vs non-IT based clinical activities*
13. **Ge Yao, Udaya Parampalli**  
*Transformation from the Fibonacci NLFSR to the Galois NLFSR with Minimal Delay*
14. **Stephanie James**  
*Improving Information Security Governance in Organisations*
15. **Doris Hoogeveen, Karin Verspoor, Timothy Baldwin**  
*Detecting False Duplicate Questions in Community Question-Answering Archives*
16. **Martin Reinoso**  
*Designing Challenges in Animated 3D Whiteboard using Augmented Reality*
17. **Oscar Correa, Ramamohanarao Kotagiri, Lars Kulik and Egemen Tanin**  
*Ride-Sharing beats Ride-Sourcing through Hot-Spots*

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