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Curriculum Vitae

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EDUCATION *Ph.D., Computer Science, 1997*
 University of London (University College)

 B.Eng., Electronic and Electrical Engineering, 1992
 University of Wales (Swansea)
 First Class Honours

APPOINTMENTS HELD

2009– Professor
 Department of Computing Science, University of Aberdeen

2008–2009 Reader
 Department of Computing Science, University of Aberdeen

2005–2008 Senior Lecturer
 Department of Computing Science, University of Aberdeen

1999–2005 Lecturer
 Department of Computing Science, University of Aberdeen

1995-1999 Research Fellow
 Department of Electronic Engineering, Queen Mary, University of London

BRIEF BIOGRAPHY

Tim Norman is Professor of Computing Science at the University of Aberdeen and leader of the Intelligent Agents research theme. He leads the Aberdeen research team involved in the US/UK International Technology Alliance in Network and Information Science (www.usukita.org) and is a Co-Investigator on the RCUK dot.rural Digital Economy Hub (www.dotrural.ac.uk). Profesor Norman's principal research field is multi-agent systems, with a focus on computational models of policies (or norms), trust, and argumentation. He is interested in how systems may be designed and analysed for policy compliance, and how these techniques can be applied to support for human decision making (e.g. in collaborative planning teams). His interests in computational models of argumentation include dialogue strategy and formal models of delegation.

PUBLICATIONS

Journal Papers

C. Burnett, T. J. Norman, and K. Sycara. Stereotypical trust and bias in dynamic multi-agent systems. *ACM Transactions on Intelligent Systems and Technology*, in press.

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C. Burnett, T. J. Norman, and K. Sycara. Supporting swift trust in ad-hoc disaster response teams. In *Proceedings of the International Association for the Study of Information Systems for Crisis Response and Management*, 2009.

J. S.-K. Lam, F. Guerin, W. W. Vasconcelos, and T. J. Norman. Building multi-agent systems for workflow enactment and exception handling. In *Proceedings of COIN@AAMAS*, Budapest, Hungary, May 2009.

T. D. Le, T. J. Norman, and W. W. Vasconcelos. Agent-based sensor-mission assignment for tasks sharing assets. In *Proceedings of the Third International Workshop on Agent Technology for Sensor Networks*, Budapest, Hungary, May 2009.

D. Masato, T. J. Norman, and W. W. Vasconcelos. Agent support for human team collaboration in uncertain environments. In *Proceedings of the First International Workshop on Mixed-Initiative Multiagent Systems*, Budapest, Hungary, May 2009.

M. Şensoy, W. W. Vasconcelos, G. de Mel, and T. J. Norman. Selection of resources for missions using semantic-aware cooperative agents. In *Proceedings of the Third International Workshop on Agent-Based Technologies and Applications for Enterprise Interoperability*, Budapest, Hungary, May 2009.

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S.-C. Lam, F. Guerin, W. Vasconcelos, and T. J. Norman. Coping with exceptions in agent-based workflow enactments. In *Proceedings of the Ninth International Workshop on Engineering Societies in the Agents World*, Saint-Etienne, France, September 2008.

N. Oren, M. Luck, S. Miles, and T. J. Norman. An argumentation inspired heuristic for resolving normative conflict. In *Proceedings of the Fifth Workshop on Coordination, Organizations, Institutions and Norms in Agent Systems (COIN@AAMAS)*, Estoril, Portugal, May 2008.

N. Oren, M. Luck, and T. J. Norman. Argumentation for normative reasoning. In *Proceedings of the AISB 2008 Symposium on Behaviour Regulation in Multi-Agent Systems*, Aberdeen, April 2008.

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PHD STUDENTS

- Graduated 2005* Martin Josef Kollingbaum
Norm-Governed Practical Reasoning Agents
Supervisor(s): T. J. Norman
- Graduated 2006* Mairi McCallum
MOChA: Modelling Organisational Change using Agents
Supervisor(s): T. J. Norman (lead) and W. W. Vasconcelos
- Graduated 2007* Dionysis Kalofonos
Simplifying Graph-Based Planning Through Abstraction
Supervisor(s): T. J. Norman
Nir Oren
An Argumentation Framework Supporting Evidential Reasoning with Applications to Contract Monitoring
Supervisor: T. J. Norman (lead) and A. Preece
- Graduated 2011* Christopher Burnett
Trust Assessment and Decision-Making in Dynamic Multi-Agent Systems
Supervisor(s): T. J. Norman (lead) and K. Sycara
- Current Students* Anthony Etuk
Supervisor(s): T. J. Norman (lead)
Mukta Aphale
Supervisor(s): T. J. Norman (lead), P. Edwards and J. Farringdon
Geeth Ranmal De Mel
Supervisor(s): W. W. Vasconcelos (lead) and T. J. Norman
Chukwuemeka David Emele
Supervisor(s): T. J. Norman (lead) and F. Guerin
Thao Le
Supervisor(s): T. J. Norman (lead) and W. W. Vasconcelos
Hengfei Li
Supervisor(s): N. Oren (lead) and T. J. Norman
Daniele Masato
Supervisor(s): T. J. Norman (lead), W. W. Vasconcelos and K. Sycara
Andrew Millington
Supervisor(s): T. J. Norman (lead), N. Oren and J. Nelson
Witold Slowinski
Supervisor(s): F. Geurin (lead) and T. J. Norman
Alice Toniolo
Supervisor(s): T. J. Norman (lead), K. Sycara and J. Farringdon

RESEARCH FELLOWS

- ITA* Murat Şensoy
- dePICT* Chris Burnett
- dot.rural* Nicolás Rotstein

RESEARCH PROJECT FUNDING

- 2011–2014 *TRUMP: A Trusted Mobile Platform for the Self-Management of Chronic Illness in Rural Areas*
£750,000 EPSRC (joint EPSRC/DST funding for consortium)
 Local Investigators: I. M. Cameron, P. Edwards (PI), T. J. Norman and I. Reid
 Academic Partners (UK): City University, Newcastle University, Northumbria University, Lancaster University
 Academic Partners (India): Indian Institute of Management Ahmedabad (IIMA), All India Institute of Medical Sciences, IIT Bombay, IIT Kharagpur, IIIT Bangalore
 Non-academic Partners: IBM, ZMQ Software Systems, Apollo Telemedicine Networking
- 2010–2013 *Agent-Enabled Framework for Semantic Integration in Sensor Networks*
£38,167 Petroleum Technology Development Fund
 Local Investigators: T. J. Norman (PI)
- 2009–2013 *dot.rural Digital Economy Research Hub*
£12.36m, EPSRC (with MRC, ESRC & AHRC)
 Local Investigators: J. H. Farrington (PI), P. Edwards, G. Fairhurst, D. J. Godden, C. Hunter, C. Mellish, J. D. Nelson, T. J. Norman, S. M. Redpath and C. Wallace
- 2009 *DebateScape interaction management*
£17,355, British Telecom
 Local Investigators: T. J. Norman (PI)
- 2008–2009 *Proactive Agent Assistance for Military Missions*
\$40,000, US Army Research Laboratory
 Local Investigators: T. J. Norman, K. Sycara (PI)
- 2008–2010 *ALIVE*
£350,076, EU Framework 7
 Local Investigators: T. J. Norman, W. W. Vasconcelos (PI), F. Guerin
 Academic Partners: Utrecht University, Universitat Politècnica de Catalunya, Bath University, Trinity College Dublin
 Industrial Partners: Calico Jack Ltd., Thales Nederland B.V., BGN d'Infografia SL
- 2006–2016 *International Technology Alliance*
£2.9m, US DoD & UK MoD
 Local Investigators: T. J. Norman (PI), N. Oren, J. Z. Pan
 Academic Partners (UK): Cambridge University, Cranfield University, Imperial College London, Royal Holloway, Southampton University, York University
 Academic Partners (USA): Carnegie Mellon University, City University of New York, Collumbia, Pennsylvania State University, Rensselaer Polytechnic Institute, University of California Los Angeles, University of Maryland, University of Massachusetts Amherst
 Industrial Partners: BBNT Solutions LLC, Boeing, Honeywell, IBM, Klein Associates, Logica CMG, Roke Manor Research Ltd., SEA Ltd.
- 2003–2006 *CONOISE-G*
£124,000, DTI/EPSRC
 Local Investigators: T. J. Norman, A. Preece (PI)
 Academic Partners: Southampton University, Cardiff University
 Industrial Partners: BT

2003–2006 *The Information Exchange*
£66,597, EPSRC
 Local Investigators: T. J. Norman (PI)
 Academic Partners: Dundee University, Southampton University
 Rated “Tending to Outstanding” overall

2000–2003 *CONOISE*
£145,000, BT
 Local Investigators: P. M. D. Gray, T. J. Norman, A. Preece (PI)
 Academic Partners: Cardiff University, Southampton University
 Industrial Partners: BT

2000–2003 *Normative Agents for Electronic Commerce*
£52,628, EPSRC
 Local Investigators: T. J. Norman (PI)
 Rated “Internationally Leading” (top rating) in Research Quality

2000 *Symposium on Argument and Computation*
£6,780, EPSRC
 Local Investigators: T. J. Norman (PI)
 Academic Partners: Dundee University
 Rated “Outstanding” (top rating) Overall

OTHER FUNDING

2010-2012 *dePICT: Developing the ICT Business Base*
£41,341, European Regional Development Fund & Scottish Executive
 Academic leader (Aberdeen) is establishing this scheme for supporting and developing Scottish ICT SMEs to encourage wealth creation in the region.

2009–2014 *Scottish Informatics and Computer Science Alliance*
£870,000, Scottish Funding Council
 Academic leader (Aberdeen) in securing this major (£14.5m) award to support and develop collaboration between Scottish computer science researchers.

2005–2009 *Collaborative Training Award*
£780,000, EPSRC
 Academic leader in Computing Science in securing this major (£1.7m) award to the University of Aberdeen to sustain and develop advanced training at both Masters and Doctoral levels. Prof Baker (Engineering) led the bid as Head of Graduate School, College of Physical Sciences.

PROFESSIONAL ACTIVITIES

Conferences and Workshops

Senior Programme Committee. Ninth International Joint Conference on Autonomous Agents and Multi-Agent Systems, 2010 (Toronto)

Area Chair (Theory) and Senior Programme Committee, Eighth International Joint Conference on Autonomous Agents and Multi-Agent Systems, 2009 (Budapest)

Invited Speaker, Workshop on Normative Multi-Agent Systems, Schloss Dagstuhl, Saabrücken, March 2009

Programme Chair, Second Annual Conference of the International Technology Alliance, 2008 (London)

Invited Speaker, Perspectives Workshop: Theory and Practice of Argumentation Systems, Schloss Dagstuhl, Saabrücken, January 2008

Keynote Speaker 8th Annual International Workshop on Engineering Societies in the Agents World, 2007 (Athens)

Organising Committee, International Workshop on Coordination in Emergent Agent Societies, 2004 (Valencia)

Co-Chair, Symposium on Argument and Computation, 2000 (Scotland)

Programme Committee, Digital Futures, Digital Economy All Hands Meeting, 2010 (Nottingham)

Programme Committee, AAAI Conference on Artificial Intelligence, 2008 (Chicago)

Programme Committee, International Joint Conference on Autonomous Agents and Multi-Agent Systems, 2002 (Bologna), 2003 (Melbourne), 2004 (New York), 2005 (Utrecht), 2006 (Hakodate), 2007 (Hawaii), 2008 (Estoril), 2009 (Budapest), 2010 (Toronto), 2011 (Taipei)

Programme Committee, International Conference on Computational Models of Argument, 2006 (Liverpool), 2008 (Toulouse), 2010 (Desenzano del Garda)

Programme Committee, International Joint Conference on Web Intelligence and Intelligent Agent Technology, 2003 (Halifax, Canada), 2004 (Beijing)

Programme Committee, International Workshop on Argumentation in Multi-Agent Systems, 2007 (Hawaii), 2008 (Estoril), 2009 (Budapest), 2010 (Toronto), 2011 (Taipei)

Programme Committee, International Workshop on Coordination, Institutions, Organisation and Norms, 2008 (Durham), 2009 (Budapest)

Programme Committee, Workshop on Behaviour Regulation in Multi-Agent Systems, 2008 (Aberdeen)

Programme Committee, International Workshop on Knowledge Representation for Agents and Multi-Agent Systems, 2008 (Sydney)

Programme Committee, Wuhan International Conference on E-Business, 2008 (Wuhan)

Programme Committee, ESSLLI Workshop on Dynamics in Logic, 2008 (Hamburg)

Programme Committee, European Workshop on Multi-Agent Systems, 2007 (Hammamet)

Programme Committee, International Workshop on Semantic Intelligent Middleware for the Web and the Grid, Valencia, 2004

Programme Committee, International Conference on Autonomous Agents, 2001 (Montreal)

Journals

Reviewer, Artificial Intelligence Journal, Elsevier

Reviewer, International Journal of Cooperative Information Systems, World Scientific

Reviewer, Journal of Autonomous Agents and Multi-Agent Systems, Springer

Reviewer, ACM Transactions on Intelligent Systems and Technology

Research Degree Examination

PhD, University of Melbourne, 2009

PhD, Liverpool University, 2006

PhD, University of Warwick, 2003

PhD, University of Southampton, 2003

PhD, Cardiff University, 2002

Consultancy & Other

COST Action (IC0801) Working Group member, 2009–2012. COST Action on agreement technologies; working group on norms (chair: Prof C. Castelfranchi).

Irish Research Council for Science, Engineering and Technology, 2008, panel member research fellowships.

Calico Jack Ltd, June–November 2003, consultancy

ADMINISTRATION	<p><i>College/University</i></p> <ul style="list-style-type: none"> Member of University Committee on Research, Income Generation and Commercialisation (2008 to date) Member of University Senate (2006 to date) Member of College Research and Commercialisation Committee (2007 to date) Member of College Graduate School Committee (2004–2007) <p><i>Departmental (based on academic years: August–July)</i></p> <ul style="list-style-type: none"> Director of Research (Computing Science) (2010 to date) Head of Computing Science (2008–2010) Director of Research (Computing Science) (2007–2008) Head of Computing Science (2005–2007) Director of Advanced Taught Masters Programmes (2003–2005) Admissions Tutor for Advanced Taught Masters Programmes & Industrial Liaison and Placement Coordinator (2002–2003) Director of Conversion Taught Masters Programme (2001–2002) Tutor for Conversion Taught Masters Programme (1999–2001) Departmental Seminar Series Coordinator (1999–2000) <p><i>Other</i></p> <ul style="list-style-type: none"> Member of SICSA (Scottish Informatics and Computer Science Alliance) Research Committee (2008 to date) Member of SICSA Graduate Academy Board (2008–2009) Member of Scottish Heads of Computing committee (2005–2010) Member of Committee of Professors and Heads of Computing (2005 to date) Deputy Director of Computational Systems Joint Research Institute for North Scotland (Scottish Funding Council inter-University research collaboration initiative) (2007 to date)
TEACHING	<p><i>Introductory Programming (undergraduate and conversion postgraduate; taught over two academic years)</i></p> <ul style="list-style-type: none"> Object-oriented design and programming Collections, iteration, basic algorithm design Introductory logic and set theory <p><i>Distributed Systems (undergraduate; taught over seven academic years)</i></p> <ul style="list-style-type: none"> Internet protocols and standards Distributed object systems and design patterns Distributed database systems and transactions Concurrency control, load management and fault tolerance Peer-to-peer architectures <p><i>Security (undergraduate and postgraduate; taught over seven academic years)</i></p> <ul style="list-style-type: none"> Cryptology Keys, key exchange, signatures, certificates and authentication Secure programming and systems administration Information privacy and legal issues Security policies and security in complex socio-technical systems <p><i>Knowledge-Based Systems (undergraduate and postgraduate; taught over two academic years)</i></p> <ul style="list-style-type: none"> Knowledge representation Inference mechanisms Reasoning under uncertainty Machine learning

Multi-Agent Systems (postgraduate; taught over four academic years)

Agent architectures

Communication languages and protocols

Game Theory, negotiation mechanisms, auctions and voting

Virtual organisations and electronic institutions

Applications in electronic commerce, workflow management and eScience/Grid/Digital Economy

July 18, 2011