

About the authors

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David Bell graduated from Queen's University, Belfast in 1969 in Pure Mathematics, and has three research degrees in different topics: programming language design, database performance, and artificial intelligence in database systems. He worked as a programmer in industry for 3 years before embarking on an academic career. He has been a full professor since 1986. He has well over 300 publications, including co-authoring of 'Distributed Databases' (Addison-Wesley) and 'Evidence Theory and its Applications' (North Holland), and has supervised more than 30 PhDs to completion. He has been a prime investigator on many national and EU-funded projects (eg MAP, ESPRIT, DELTA, COST, AIM,...) in IT since 1981. He is a member of the editorial boards of Information Systems and The Computer Journal, and he has been guest editor of special issues of well-known journals, on subjects such as Data Mining and The Semantic Web. He has also chaired/co-chaired several programme committees, including those for VLDB and ICDE. His research is in data and knowledge engineering—often linking reasoning under uncertainty, machine learning, and other artificial intelligence techniques with distributed database work.

Nuala Brady received a BA in Psychology from Trinity College Dublin (1987) where

she held a Foundation Scholarship in Psychology. She has a Ph.D. in Experimental Psychology from Cornell University (1994) and was a postdoctoral research fellow at McGill University and Harvard Medical School. Dr. Brady was a lecturer in the Department of Psychology at the University of Manchester from 1994 to 2000 and joined the School of Psychology at UCD in 2000. Her current research interests are in social cognition, the perception of faces and biological motion and in the links between perception and action.

Derek Bridge is a senior lecturer in the Department of Computer Science at University College Cork, where he leads the Knowledge Engineering Group. His Ph.D. from the University of Cambridge was in the area of computational linguistics. His subsequent research has covered topics such as machine learning of natural language grammars, ant algorithms for solving optimisation problems, collaborative recommender systems, analyses of case-based learning, similarity measures for case-based reasoning, and applications of case-based reasoning to product recommendation, software engineering and spam filtering.

Dave Bustard is currently a Professor of Computing Science and Head of School at the University of Ulster. Before that he was at

Queen's University, Belfast (1974–1990) and worked briefly as a programmer for Ferranti Digital Systems (1972–1974). He has also been a visiting scientist at the Software Engineering Institute, Pittsburgh and BT Research Labs, Martlesham. He holds a BSc in Physics (1971) and an MSc (1973) and Ph.D. (1980) in Computer Science from Queen's University, Belfast. His broad area of research is software engineering, with particular emphasis on the requirements, design and management aspects of the process. This has included work on risk management, agile development and autonomic computing. Since 1990, much of this work has been underpinned by general systems ideas.

Rem Collier is a Lecturer in the School of Computer Science and Informatics, College of Engineering, Mathematical, and Physical Sciences, University College Dublin, Dublin, Ireland. He completed a B.Sc. in Pure and Applied Mathematics in the Department of Mathematics, University of Bristol, United Kingdom in 1994, and went on to study for a M.Sc. in Computation at the University of Manchester Institute of Science and Technology (UMIST), United Kingdom, which he completed in 1995. Following this, he also completed a one year M.Phil. at UMIST, which he completed in 1996 before commencing a Doctorate in Computer Science in the Department of Computer Science, Faculty of Science, University College Dublin, entitled "Agent Factory: A Framework for the Engineering of Agent-Oriented Applications". In 2002, he returned to academia as a Post-Doctoral researcher in the University College Dublin, before taking up his current lecturing post in 2003. His primary research interests are Agent-Oriented Software Engineering, Agent-Oriented Programming Languages, and Autonomic Computing Systems.

Fred Cummins is a College Lecturer in the School of Computer Science and Informatics, University College Dublin. He is co-director of the Cognitive Science Programme

at UCD. His research has focussed on issues of coordination and timing in speech production, with a view to dynamical modelling. The dynamical systems approach to cognitive science extends to newer work in the fields of visual perception and the epistemological foundations of cognitive science. He is holder of a Science Foundation Ireland Principle Investigator grant for the study of methods for automatic speaker identification. Previous funded research projects included the study of synchronous speech and the development of multimodal interfaces. He obtained his Ph.D. from Indiana University in 1997, and completed postdoctoral research positions at Northwestern University and the Dalla Molle Institute for Artificial Intelligence, Lugano, CH, before joining the faculty at UCD in 1999. He also directed the Adaptive Speech Interface group within Media Lab Europe from 2000 to 2004.

Ronan Cummins received a B.Eng. (Hons) in Computer Engineering from the University of Limerick in 2000 and an M.Sc.(Hons) in Software Design and Development from NUI Galway in 2004. He is currently a Ph.D. student in the Department of Information Technology in NUI Galway and is funded by an IRCSET scholarship. His main interests are in Information Retrieval, Artificial Intelligence and Evolutionary Computation.

Pádraig Cunningham: Dr. Cunningham is Professor of Knowledge and Data Engineering in the School of Computer Science and Informatics at University College Dublin. His current research focus is on the use of machine learning techniques in processing high-dimension data. He has a B.E. and M.Eng.Sci. from NUI Galway and a Ph.D. from Dublin University which he received in 1989. He was elected to Fellowship in TCD in 1998. He became a Fellow of ECCAI (European Coordinating Committee on Artificial Intelligence) in 2004. After completing his Ph.D. he worked with Digital Equipment Corporation as a Software Engineer and with Hitachi Europe Ltd. as a Research Scientist.

He joined Trinity College Dublin as a lecturer in 1992 and moved to the School of Computer Science and Informatics in University College Dublin in 2006. He is a former director of New World Commerce, now New WorldIQ, a Dublin e-commerce IT company that employed over 40 people. He is a former director of start-up companies New World Commerce and Prediction Dynamics. Dr. Cunningham has published over 140 peer-reviewed papers in the general area of applied AI, focusing on machine learning and knowledge based systems for decision support in engineering, e-commerce, finance and medicine.

Sarah Jane Delany is a lecturer in the School of Computing in the Dublin Institute of Technology and a member of the Artificial Intelligence Research Group. Her research interests are primarily in machine learning and text mining. Her Ph.D., from Dublin Institute of Technology, investigated the problem of concept drift in spam filtering.

John Dunning is a Senior Lecturer in the School of Computer Science and Informatics, University College Dublin, where he is co-director of the Intelligent Information Retrieval Group. A graduate of University College Dublin, his principal research interests are in Information Retrieval, Document Summarisation and Question Answering, and the application of Computational Linguistics techniques in these areas.

Sa'adah Hassan is a Ph.D. student in the School of Computing and Information Engineering at the University of Ulster. Her research study is sponsored by the Ministry of Higher Education Malaysia and Universiti Putra Malaysia, where she has been a member of the academic staff since 2004. She completed an MSc in Software Engineering at the University of Malaya in 2003 and a BSc (Hons) in Computer Science at the Universiti Teknologi Malaysia (UTM) in 1999. She also holds a Diploma in Computer Science from MARA University of Technology,

Malaysia, where she worked as a programmer for several years before beginning her undergraduate studies at UTM. Her research interests include software engineering, intelligent systems, and autonomic computing.

Patrick Horgan is currently a Clinical Research Fellow in the Faculty of Medical and Human Sciences in The University of Manchester. He obtained an MSc in Cognitive Science in 2005 in University College Dublin (UCD), Ireland. He also trained in psychiatry obtaining Membership of the Royal College of Psychiatrists in 2003. He obtained a Higher Diploma in Computer Science in 1998 in University College Cork (UCC), Ireland. He completed his undergraduate Medical Degree in University College Dublin (UCD), Ireland in 1997. Current interests include the investigation by neuroimaging of the role of dopamine in learning in humans.

Enda Howley received a B.Sc.(Hons) in Information Technology from the National University of Ireland, Galway in 2004. He is currently a Ph.D. student in the Department of Information Technology in NUI Galway. In 2004 he was awarded an IRCSET Embark scholarship. He is currently a member of the Computational Intelligence Research Group (CIRG). His main research interests include Multi-Agent Systems, Game Theory, Artificial Intelligence and Evolutionary Computation.

Stuart Jackson is a Ph.D. student in the School of Computer Science & Informatics at University College Dublin (UCD). He completed an MA in Cognitive Science at UCD in 2006, and previously graduated from UCD with a BA in Psychology in 2003. His current research focus is on action perception and biological motion processing, and the role of body perception in the development of theory of mind. His graduate work has also taken in research on multistability in vision, and the application of movement perception tasks in motor rehabilitation. He is a member of the Cognitive Neuroscience Society and

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Patrick Kirwan is a Ph.D. student, studying the interactions between malaria and geohelminths, at the School of Natural Science, University of Dublin (Trinity College), Ireland. He completed his Bachelor's degree in Natural Science (B.A, Hons.) from University of Dublin, Ireland in 2003. His primary research interests are in parasitology with particular interest in parasite interactions.

David Lillis is a Ph.D. student in the School of Computer Science and Informatics, University College Dublin, where he is a member of the Intelligent Information Retrieval Group. He graduated from the University of Limerick in 2002 with a BA in Law and Accounting. Following this, he completed a Higher Diploma in Computer Science in 2003 and a MSc in Computer Science in 2006, both from University College Dublin. His principal research interests are Information Retrieval and Multi Agent Systems.

Weiru Liu is a Reader at the School of Electronics, Electrical Engineering and Computer Science, Queen's University Belfast. She received her B.Sc. and M.Sc. degrees in Computer Science from Jilin University, P.R. China, and her Ph.D. degree in Artificial Intelligence from the University of Edinburgh. Her main research interests include reasoning under uncertainty, knowledge representation and reasoning, uncertain knowledge and information fusion, and knowledge discovery in databases. She has published over 70 journal and conference papers in these areas.

David McSherry is a Senior Lecturer in the School of Computing and Information Engineering at the University of Ulster. He graduated from Queen's University Belfast with first class honours in Mathematics in 1973 and was awarded the degrees of MSc and Ph.D. by the same university in 1974 and 1976. He held academic posts at Queen's

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Peter Milligan is a senior lecturer in the School of Electronics, Electrical Engineering and Computer Science. His research interest include the design and implementation of semi-automated development environments for parallel, distributed and mobile computing; software modelling and re-engineering; the use of object models as a basis for the design, development and maintenance of software systems; meta-heuristic knowledge engineering; the use of combined AI techniques as intelligent agents in the development, transformation and maintenance of sequential and parallel codes; meta-computing systems: the dynamic transformation and generation of software and hardware systems; the utilisation of FPGAs for dynamic hardware construction.

Kenneth Monaghan is a College Lecturer in University College Dublin, School of Physiotherapy & Performance Science. He completed his Ph.D. (2006) in the area of 3D Motion Analysis of Chronic Ankle Instability (CAI) and has published in Physiotherapy Ireland, Clinical Biomechanics, Gait & Posture, and JOSPT. Recent Seed funding grants (Euro50k) have developed research in the areas of Motor perception in stroke, kinematic analysis of golf putting, and further analysis of CAI. He completed his MMedSc(Sports Physiotherapy) in 2000 from UCD, and graduated with a BPhysiotherapy in 1992 (UCD). He is currently a member of the ISCP Overseas Assessment Sub-Committee (OASC) and was part of the International organising committee for the 3rd International Ankle symposium held in

UCD 1st–3rd September 2006. He is course director for the Graduate Diploma/MSc in Healthcare (Acupuncture) and is co-ordinating numerous undergraduate courses in UCD. His research interests include Sports Biomechanics, Exercise and Fitness, Falls in the Elderly, and has an active participation in the development of e-learning courses in UCD.

Emma-Claire Mullally graduated from NUI Maynooth, where she studied computer science and software engineering, in 2004. She is currently perusing a Ph.D. in the area of Structure Matching in GIS.

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Diarmuid O'Donoghue received his B.Sc. and M.Sc. from University College Cork in 1988 and 1990, and his Ph.D. from University College Dublin. He has been a lecturer at the Department of Computer Science NUI Maynooth since 1996. Diarmuid is also an associate of the National Centre for Geocomputation. His interests are in artificial intelligence, cognitive modelling, analogical reasoning, qualitative spatial reasoning and evolutionary computation.

Colm O'Riordan lectures in the Department of Information Technology, National University of Ireland, Galway. His main research interests are in the fields of Artificial Life, Evolutionary Computation and Information Retrieval. His current research focusses on cooperation and coordination in Artificial Life societies and Multi-agent systems.

Guilin Qi is a postdoctoral researcher working at the Institute for Applied Informatics and Formal Description Methods (AIFB) at the University of Karlsruhe in Germany. He received his Ph.D. in Computer Science from Queen's University of Belfast in 2006. Before he moved to Belfast, he completed a Master degree in Mathematics at Jiangxi Normal University in China. His research interests include knowledge representation and reasoning, uncertainty reasoning, and semantic web. He has published more than 30 papers in these areas; some of them appeared in top conferences or journals. He is Editorial Board Member for Journal of Advances in Artificial Intelligence. He was PC members of the International Workshop on Ontology Dynamics (IWOD'07) and of the first International Workshop on Semantic e-Science.

Paul Sage is a lecturer in Computer Science in Queen's University, Belfast, from where he previously gained his honours degree and doctorate. His research interests include the application of artificial intelligence techniques in the areas of code transformation for parallel architectures, grid and P2P computing surfaces.

Michael Smullen graduated with a first class honours degree in Information Technology from NUI, Galway in 2004. He completed his M.Sc in 2007 researching the domain of Information Retrieval. His research interests include modelling context in information retrieval, user modelling and data mining.

Fergus Toolan is a lecturer in the Faculty of Computing Science in Griffith College Dublin. He is currently completing his Ph.D. in

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He completed an M.Sc in Computer Science from University College Dublin in 2002 focusing on the area of Web Personalisation, and obtained his primary degree from University College Dublin in 2000.