

## EDITORIAL PREFACE

*Arthur Tatnall, Victoria University, Australia*

This final issue of the *International Journal of Actor-Network Theory and Technological Innovation* for 2012 (Issue 4 of Volume 4) contains three much longer but quite different articles. The first article is by Maryam Sharifzadeh from the Department of Rural Development Management, College of Agriculture, Yasouj University, Iran, and her colleagues. It is titled: “The Iranian Wheat Growers’ Climate Information Use: An Actor-Network Theory Perspective.” The research used a case study approach to investigate the uses made of climate information by wheat growers in the Fars province of Iran, analysed using a combination of an actor-network theory framework and the dynamic actor-network analysis (DANA) model. The article describes an interdisciplinary research project to study agricultural climate information use in Iran, linking sociology of translation (ANT) and actor analysis premises in a qualitative research design. The research found socio-political factors (awareness, motivation and trust), and information processing factors (accuracy of information, access to information and correspondence of information to farmers expectations) to be the key elements in facilitating climate information use in farming practices.

In the second article: “Observing the ‘Fluid’ Continuity of an IT Artefact,” Rennie Naidoo and Awie Leonard from the University of Pretoria in the Republic of South Africa investigate contemporary healthcare information systems from an ANT perspective. They suggest that these systems offer the prospect of exploring unique features of the IT artefact and to probe the finer, integral relations between society, technology and humans. Using empirical material drawn from a longitudinal case study of an Internet-based self-service technology implementation in the private healthcare insurance context, the article explores various aspects of ‘fluid continuity’ enacted by a technological object, challenging conventional perspectives of a stable and enduring IT artefact but offering an alternative possibility claiming that a contemporary IT artefact is not necessarily delineated by firm boundaries or stable relations but can be unpredictable and transitory. They look at the object’s varying identities, its vague boundaries, its unexpected usage patterns and its resourceful designers.

The final article, by Bill Davey from RMIT University in Melbourne, Australia, and Arthur Tatnall from Victoria University in Melbourne,

Australia, looks at the adoption of several examples of School Management software in Victoria, using actor-network theory to explain this technological adoption. The article is titled: “Using ANT to Guide Technological Adoption: The Case of School Management Software” and it examines three examples of school management software, identifying the actors and interactions relating to each of these with the goal of finding and analysing the factors that influence decisions to adopt this software and, once adopted, to determine how it might

be used. Like other socio-technical research, in this case the article considers and examines the interactions between various human and non-human actors. The article also looks at how an ANT analysis might be useful in guiding and facilitating such adoption in the future.

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*Arthur Tatnall is an Associate Professor in the Graduate School of Business at Victoria University in Melbourne, Australia. In his PhD he used actor-network theory to investigate adoption of Visual Basic in the curriculum of an Australian university. Arthur's research interests include technological innovation, history of technology, project management, information systems curriculum, information technology in educational management and electronic business. Much of his research is based on the use of actor-network theory. Arthur is a Fellow of the Australian Computer Society and active in the International Federation for Information Processing (IFIP) as Chair of IFIP WG9.7 – History of Computing, Chair of IFIP WG3.4 – ICT in Professional and Vocational Education and a member of IFIP WG3.7 – Information Technology in Educational Management. He has published widely in journals, books, book chapters and conference proceedings and recently edited the Encyclopedia of Portal Technology and Applications and Web Technologies: Concepts, Methodologies, Tools and Applications for IGI Global. Arthur is also Editor-in-Chief of the International Journal of Actor-Network Theory and Technological Innovation, Editor-in-Chief of the Journal of Education and Information Technologies and Editor of the Journal of Business Systems, Governance and Ethics.*