

## EDITORIAL PREFACE

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The first article in this issue, *Information Systems and Actor-Network Theory Analysis*, was written by Tiko Iyamu, from the Polytechnic of Namibia in Windhoek, Namibia, and Tefo Sekgweleo from Tshwane University of Technology in Pretoria, South Africa. In the article they discuss how studies over many years have shown that lots more complexity exist in the development and implementation of information systems in organisations that just the technical. These complex issues, which include operational issues, environmental trends, processes flow, communicative schemes, and the actors' relationships, are socio-technical in nature and this requires a refresh examination, from social context if useful results are to be achieved. They go on to note that the unpredictable nature of business and rapidly changing user requirements makes it even more difficult to develop and implement systems within budget and timeframe. Importantly also, other challenges exist within the social context, such as politics and culture affiliations. The article then makes use of a lens based on Actor-Network Theory to understanding the social context of how information systems are developed and implemented is gained.

The next article, *A Critical Review of the Ontological Assumptions of Actor-Network Theory for Representing E-Government Initiatives*, is by Johaness Eka Priyatma from Sanata Dharma

University Indonesia. The article points out that the potential contribution of Actor-Network Theory for representing e-government initiative flows from its ontological assumptions, but that these assumptions have never been critically reviewed using real e-government cases. Making use of two e-government cases from Indonesia the article then provides evidence on how meaningful the ontological assumptions of ANT are for representing e-government.

Next is an article by Markus Spöhrer from the University of Konstanz, Germany, titled: *The (Re-) Socialization of Technical Objects in Patient Networks: The Case of the Cochlear Implant*. The author indicates that the paper makes an effort to describe the processes of technical stabilization of the 'epistemic thing' cochlear implant in certain stabilized scientific environments and the way in which such stabilizations are fortified, discoursified and medially produced. The paper notes that such technical stabilizations can only be accomplished by rigorously excluding attributes of the social. The problem with this though is that the cochlear implant is born out of the need to enable participation in 'normal' social life and is thus a thoroughly social actor attributed with certain social attachments. With the translation into patient networks, the technical object cochlear implant is re-inscribed with attributes of the social and is thus subject to destabilization,

remediatization and re-socialization again. Being transferred from the stabilized context of biological and medical science, the discourses of the cochlear implant are accumulated with elements of ethical or judicial discourses in which social issues are in the foreground. The article illustrates this by analyzing scientific 'viscourses' and images which are used as illustrations for the successful communication between implanted children and their parents in practical guides for parents with deaf children.

The next article: *Two Computer Systems in Victorian Schools and the Actors and Networks Involved in their Implementation and Use* was written by Bill Davey and Arthur Tatnall from Australia. The article makes use of a socio-technical stance to examine two computer systems currently in use in schools in Victoria: CASES21 and the Ultranet. The article examines the associations involving both the human and non-human actors in relation to these systems, and how these contributed to successful adoption and use of these systems. The ANT approach to a comparison of two systems within the same organisational environment allows a unique perspective on the formation of networks and permits an understanding of the difference in adoption where very few factors differ between the cases.

The final article in this issue: *How Using ANT Can Assist to Understand Key Issues for Successful e-Health Solutions* was written by Imran Muhammad, Manuel Zwicker from RMIT University Australia and Nilmini Wickramasinghe from RMIT University and Epworth HealthCare, Australia. In the article the authors note that from a global perspective in healthcare, the focus is on designing and implementing national e-health solutions in an attempt to address key challenges that are plaguing healthcare delivery, but that many of these e-health solutions have either yet to prove their success or have been complete failures. Making use of ANT as a rich theoretical lens that can be used to assist in understanding the key issues for successful e-health solutions, this article presents findings from an exploratory study on e-health initiatives in five countries Australia, China, Germany, UK and US. The study sought to understand why these e-health solutions have not as yet delivered the promised results.

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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 Encyclopaedia 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.*