
Editorial

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Biographical notes: Dr. Arthur Tatnall is an Associate Professor in the Graduate School of Business at Victoria University in Melbourne, Australia. His PhD involved a study in curriculum innovation using actor-network to investigate the manner in which Visual Basic entered the curriculum of an Australian university. His research interests include technological innovation, history of technology, information systems curriculum, information technology in educational management, project management and electronic commerce. He has published numerous books, book chapters, journal articles and conference papers, and recently edited the *Encyclopaedia of Portal Technology and Applications* for IGI Global. He is also strongly involved in the work of IFIP.

Nilmini Wickramasinghe researches and teaches in several areas within information systems. She is well published in all those areas, with more than 60 refereed scholarly articles and several books. In addition, she regularly presents her work throughout North America, as well as in Europe and Australasia. She is the Associate Director of the Center for the Management of Medical Technology (CMMT) and an Associate Professor at the Stuart School of Business, IIT, USA.

Dr. Rajeev K. Bali is a Reader in the Department of Knowledge and Information Management at Coventry University, UK. His primary research interests are in clinical and healthcare knowledge management, clinical governance and medical informatics. Additional interests lie in organisational behaviour and paedagogy.

It is now over 20 years since Bruno Latour, Michel Callon and John Law began developing Actor-Network Theory (ANT) in France and the UK. Initially regarded by many as just an interesting curiosity, over this period the use of ANT has increased in popularity with researchers around the world. This is especially so in a number of areas including Information Systems where its use is recently gaining much more interest. With its insistence that all human and non-human actors are important and should be treated in the same manner, ANT offers a very suitable approach to investigations where both technological and human factors are important as is often the case in Information Systems research.

This special issue makes no attempt at comprehensive coverage of the fields covered by ANT research studies, but instead offers five examples from around the world, of the use of ANT in relation to aspects of Information Systems research.

In the first article, 'Acknowledging the innate impact of an information technology for engaging people in knowledge work: the case of weblog technology', Kaiser and Müller-Seitz set out to examine how distributed knowledge and knowing in practice can be created, utilised and organised using personalised and informal publications on the internet, without the usual knowledge management structures and without governance mechanisms in a classical sense.

Kaiser and Müller-Seitz reconstruct the dynamics of knowledge practices via weblogs as technological artefacts of knowledge, and argue that the distinct features of this novel technology might unleash organisational knowledge and offer the possibility to overcome traditional knowledge management barriers due to a complex interplay of various human as well as non-human actors. Based on their analysis they develop a theoretical framework by employing ANT to illustrate the role of weblogs as embodiments and dynamic carriers of practical knowledge.

The next article, 'Organising competences – actor-network theory in virtual settings', is by Abreu Gonçalves and Figueiredo. In their article, they investigate 'professionalism', which they note is a way of organising occupations that allows considerable control over work, and attempt a better understanding of the role of learned professionals such as lawyers, physicians, engineers, scientists and professors on the innovation processes. The authors pictured a situation where professionals, endowed with a priori profiles of competences, engage in tasks by negotiating with other actors in the network in a specific setting and observe the processes of specialisation emerging within teams. The goal was to somehow find how specialisation and innovative practices emerge and whether there are any 'triggers' to this innovation process. In the course of work, profiles of professional competences may be altered (translated) and some relevant innovations eventually emerge. By registering these back into the initial sets of profiles they aim to spot and characterise how the innovations occurred.

The third article, by Wickramasinghe and Bali, considers use of a suitable research methodology in conjunction with ANT. Titled 'Ethical ethnography as an appropriate research methodology for ANT', the article notes the increasing use of ANT as a useful lens in helping uncover complex issues in various settings but that, to date, most studies are mute on a suitable research methodology. The authors argue that as ethnography is a research methodology well suited to first-hand investigation this makes it appropriate for use with ANT. The article then focuses on ethnographic immersion and its importance to facilitating the use of actor-network theory.

The article by Kasimin *et al.*, 'Diagnosing an ongoing information technology transfer process: an approach based on ANT', then discusses the need for a framework to diagnose ongoing information technology transfer processes in Malaysia. The authors propose an Information Technology transfer life cycle, using a framework called Network Information Technology Transfer (NITT) which make use of actor-network theory. In the article they note that technology transfer is very important to developing countries such as Malaysia in order for them to achieve competitiveness, but that despite the billions of dollars invested in foreign technologies, technology transfer in developing countries, with a few exceptions, is still not encouraging and impressive. The article argues that an appropriate approach to the study of technology transfer should be able to diagnose issues related to the technology, activities in transfer process, organisation's capacity to absorb new technology and interrelationships between those involved in the transfer of technology.

In the final article, 'Innovation translation as a research approach to theorising information systems implementation', Tatnall proposes that innovation theory should be allowed to play a more important role than it currently does in any research into factors affecting the successful adoption of an information system by an organisation. The article investigates the use of innovation translation, informed by actor-network theory and offers several case studies to illustrate the advantages that this approach offers over innovation diffusion theory. Tatnall argues that in considering the human and organisational changes that allow an information system to be adopted in an organisation, or that prevent its successful adoption, the theory of innovation translation can provide a useful explanatory framework.