

## EDITORIAL PREFACE

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This edition of the International Journal of Information technology and the Systems Approach is devoted to Systems ideas and the way that they have been applied in a variety of situations. The edition includes an interview with Professor Peter Checkland and 4 peer reviewed papers. Although these papers could have been published in the forthcoming *International Journal of Systems and Society*, we feel that our readership will also appreciate an edition in which we explore the use of systems thinking, in particular Checkland's ideas. These ideas have been used in information systems development and design for many years and fit comfortably within this journal.

The interview with Peter Checkland is welcome, as he has made a significant contribution to Systems thinking and practice for more than 40 years. In particular he and his team of researchers have contributed to thinking about organisational intervention and to Action research. As all sectors of our community rely upon information technology its successful development and implementation requires a blend of technical and organisational skills. It is often the case that when information systems fail it is because of a mismatch of understand-

ing between the clients and the designers who may well have tried to fit the end user into a technical system rather than develop a technical system that supports the clients needs and the culture of the enterprise. To undertake such a design process requires a tool set that includes methods of gaining organisational understanding beyond the scope of most of the traditional techniques used on ICT design.

Professor Checkland's interview traces his ideas from its origins in the 1970's through to the present day. He tells us of the origins of Soft Systems Methodology and how it has evolved since then. He discusses his relationship with Sir Geoffrey Vickers and its influence upon his thinking about SSM. In the interview he asks for more accounts of using soft systems ideas rather than the trend to write papers about other papers. He points out that in the USA the drive to make Management Science 'scientific' is much stronger than in Europe or the Commonwealth and warns us of the danger for young academics seeking to please senior professors rather than rock the boat, which serves to reinforce the iron grip of positivism.

The first paper in this edition is a position paper written by Harry Kogetsidis that continues

with theme of change but related to information System development. In the paper the author reminds us that the management literature is full of claims relating to the high failure rate of organisational change implementation programmes. Kogetsidis makes the case that change initiatives frequently fail because they are not holistic in nature. He argues that change can be managed more effectively if the various interconnected and interacting elements of the system are identified, the divergent interests of the various stakeholders are recognised, and the entire change process is managed systemically. As the failures of change efforts are commonly related to human issues, as opposed to technical factors, they should involve all stakeholders in the change process and is expected to reduce resistance and to create a higher level of psychological commitment among employees. The author looks into the implications that thinking holistic way has upon information systems development arguing that information systems should not be implemented as a means to solving a problem, but instead be treated as a significant tool to help address a complex mix of organisational issues. He asserts that information system strategy must be in line with the organizations' corporate strategic plan and information systems must be related to a continually changing organisational context and a turbulent business environment.

Tony White's article, *Human Supervision of Automated Systems and the Implications of Double Loop Learning*, describes the problem of human monitoring of automations. He considers approaches involved in mental models

and compares the ideas involved in double loop learning. He then brings the approaches together, with limited experimental experience, to form a model of the learning model involved in developing human control with proposed strategies for development.

The article entitled, *On the Suitability of Soft Systems Methodology and the Work System Method in Some Software Project Contexts*, is written by Petkov, Alter, Petkova and Andrew. In it the authors propose the use of the System of Systems Methodologies (SOSM) framework by Jackson and Keys for mapping of diverse software project contexts analyzed previously in the software development literature. In a potpourri of approaches they evaluate the suitability of Soft Systems Methodology and the Work System Method for specific situations within SOSM. They then extend the work by Bustard and Keenan and by Alter and Browne. The combination of methods within a particular project they suggest may lead to better tailoring of software development processes.

In the final article by Nguyen and Vo, entitled *A Semiosis Model of Natures and Relationships Among Categories of Information in IS* [another long title], the authors explore a semiotics approach and the relationship between the category of information and its relatives, they argue to be data and knowledge. The end result is a model that they suggest makes clear the evolutionary natures and the triadic relation among information categories. A central thesis of the paper is the pragmatic model of information formulation in the information systems field.