

# Research Conducted by Professional Information Systems Practitioners in Organisations in South Africa

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## INTRODUCTION

In South Africa, a professional in the Information Systems (IS) discipline means any person practicing or managing the practice of skills used in the performance of work in the family of computing disciplines and who subscribes to the Code of Conduct and the rules of the recognised institute for its registered members. The Institute of Information Technology Professionals South Africa (IITPSA) - formerly Computer Society South Africa (CSSA) - has a Code of Practice (Professional Conduct) for its registered members. The IITPSA is widely recognised as a professional body for information systems (IS) practitioners. In this article focus is made on the professional IS practitioner who conducts practitioner research in the IS discipline in organisations in South Africa. The goal of this article is to give some perspectives on the role of research conducted by professional IS practitioners in the IS discipline in South Africa.

This article is organised as follows: The role of practitioner research in the research domain is outlined. This is followed by a discussion of the IS discipline in the family of computing disciplines. Thereafter there is a discussion of the IITPSA and professional membership. Then some perspectives on the role of research undertaken by the professional IS practitioner are given. The article ends with a conclusion.

## BACKGROUND TO PRACTITIONER RESEARCH

Practitioner research is often used as an umbrella term for a variety of research-based activities – mostly in the fields of education and social and health care. While there is not much literature that discusses other

professional areas, practitioner research implies that all practitioners will learn from the research into their practice. This is not always the case in other forms of research (*eg.* scientific). Campbell (2007) suggests that practitioner research also aims at *improving* rather than *proving* as an approach to research.

Practitioner research can be defined as systematic inquiry-based efforts directed towards creating and extending professional knowledge and associated understandings of professional practice (Goodfellow, 2005). Practitioner research is located in the field of practice-based or applied research which covers all research about and into practice. It is argued that such practice includes the IS discipline. Research and practice are linked by an exchange in which researchers offer theories and techniques applicable to practice problems; and practitioners, in turn, give researchers new problems to frame and practical tests of the utility of research results (Schön, 2001). Furlong and Oancea (2005: p.1) suggest that practitioner research is like applied research – “an area situated between academia-led theoretical pursuits and research-informed practice.” Groundwater-Smith and Mockler (2006: p.107) opine that in the field of practice-based research “those involved in practitioner enquiry are bound to engage with both ‘theoretical’ and ‘practical’ knowledge moving seamlessly between the two.” Should this movement not occur, a research gap between theory and practice will arise. Sahay and Walsham (1995) suggest that research which strongly engages with theory can help bridge the gap between theory and practice. Practitioner research allows practitioners [including professional IS practitioners] to undertake small-scale research in case studies, ethnographic studies and to be eclectic in their use of methods during inquiry (Campbell, McNamara & Gilroy, 2004: p.80). Inquiry is an integral part of how new knowledge is generated in IS practice. Work

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in organisations engenders constant change where new knowledge, understanding and new ways of looking at IS practices through practitioner-led inquiry can bring about innovation and the ability to infuse change in these organisations. IS is about how humans use information technology (IT) with specific emphasis on organisational use.

## ROLE OF PRACTITIONER RESEARCH IN THE RESEARCH DOMAIN

According to Macpherson, Brooker, Aspland and Cuskelly (2004) and McTaggart (1989), undertaking practitioner research is to engage in systematic and critical inquiry. It also involves meaning-making and a responsibility to make that meaning known (Fasoli & Ford, 2001). IS practitioner research within the IS discipline can be regarded as research undertaken by practicing IS professionals who seek to improve the IS practice through purposeful and critical examination of, and reflection on, their IS work. Such introspection is designed to increase awareness of the bases of professional actions, decisions and judgments enabling these professional IS practitioners to 'see' their practices anew and recognise and articulate the complexities of their IS work and the values that lie at the heart of professional IS practice. From a scan of the available literature of professional IS practice research in South Africa, it appears that such research appears to be under-researched.

Systematic and critical inquiry by professionals of their practices necessitates a 'discerning eye' (Fish, 1999: p.195). In addition thereto, capacity is required to make open-minded judgments against theoretical underpinnings and the norms of personal/professional practice. However, there are degrees of open-mindedness which requires a commitment to being prepared to actively seek evidence which will challenge the practitioner researcher's own personal values and beliefs. Remenyi, Pather and Klopper (2011: p.362-3) suggest that there is a potential paradox with regards to this issue as being too open-minded "will detract from the focus required for the successful research and thus could lead to unsatisfactory results." Professional IS practitioners therefore have to maintain

open-mindedness and be aware of and attempting to counteract 'confirmatory bias' whereby they have a tendency to look for evidence in support of their established ideas and theories (ibid: p.363). This open-mindedness must be maintained by all professional IS practitioners engaging in practitioner research in the family of computing disciplines.

## FAMILY OF COMPUTING DISCIPLINES

Computing means "any goal-oriented activity requiring, benefiting from, or creating computers" (CC 2005 Overview Report 2005: p.9). Computing is not just a single discipline but is a family of disciplines. According to the CC 2005 Overview Report (2005: p.14-15), there are five major computing disciplines:

- **Computer Engineering:** Which is concerned with the design and construction of computers and computer-based systems;
- **Computer Science:** Spans a wide range, from its theoretical and algorithmic foundation to developments in robotics, computer vision, intelligent systems, bio-informatics;
- **Information Systems:** Specialists focus on integrating IT solutions and business processes to meet the information needs of businesses enabling them to achieve their objectives in an effective, efficient way. This discipline's perspective on IT emphasises information and views technology as an instrument for generating, processing and distributing information;
- **Information Technology:** While IS focus on the information aspects of IT, IT is the complement of that perspective: its emphasis is on the technology itself more than on the information it conveys; and
- **Software Engineering:** Is the discipline of developing and maintaining software systems that behave reliably and efficiently, are affordable to develop and maintain, and satisfy all the requirements that customers have defined for them.

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