Chapter V
New Paradigms:
A Collaborative Web-Based Research Tool

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ABSTRACT

The chapter aims to document the challenges associated with the management of an international research program and to look at innovative, information technology (IT) based ways of tackling these. Through the medium of a case study, insights gained from practical experience developing and implementing an original Web based collaborative research management tool are discussed. This tool is based on a centralised model of information distribution and access. It was designed following a reductionist analysis of existing research processes and procedures. The ways in which the integration of responsive IT processes into the management of a large international research program have removed redundancies and increased automation and research efficiency are also discussed.

INTRODUCTION

This chapter presents, through the medium of a case study, insights gained from practical experience developing and implementing an original Web based collaborative research tool to assist and enhance the management of an existing, qualitative research program. The case example used is that of the International Program of Psycho-Social Health Research (IPP-SHR). This case study provides the reader with insights into the ways in which information technology (IT) processes can be used to overcome problems associated with the postmodern research environment. Within this context, the major challenges are to address the fragmented nature of research locations, staff, and project administration within a global setting.

Technological advances have paved the way for global research, enabling it to transcend physical, geographical, and cultural boundaries. However, there are still great challenges to be overcome in conducting a truly international research program.

The chapter aims to document the challenges associated with the process and management of a large international research program and to look at innovative, IT based ways of tackling these.

The International Program of Psycho-Social Health Research provides international leadership through research, publication, education, media, newsletters, and podcasting activities in the area of psycho-social health research. This program explores a broad range of psycho-social health issues including: the lived experience of serious and terminal illness; haematology and oncology; palliative care; indigenous health; rural and remote health; mental health; obstetrics; bio-ethics; and the interface between patients and the health care system. The core aim of IPP-SHR is to make a difference by informing policy and service delivery in the real world of health care.

This program utilises a qualitative, or naturalistic, research methodology, which seeks to document the voice of research participants from their own worldview (Streubert & Carpenter, 1995). Such methodologies are underpinned by a philosophical perspective that listens to, rather than imposes on, the experience of others and has a sensitivity to the disempowered and marginalised (Latimer et al., 2003). The large and diverse amount of the data gained from using such methodologies, coupled with diverse and geographical isolated data collection sites of an international program, necessitated the design and construction of a central based management system.

After extensive literature searches in major databases, consultation with software and project management vendors, and collaboration and discussion with international leaders in qualitative methodologies, it was evident that no such program existed to meet the specific requirements of IPP-SHR or collaborative multisite qualitative research projects. As such, to meet the challenges and technical difficulties associated with IPP-SHR's methodology and operation, an Internet based research tool was designed. Server side technologies were utilised to achieve a central research portal for IPP-SHR practitioners to use and collaborate through, independent of their physical location. The maturing of server side and Internet connectivity and speed are major contributors to the success of such a system. The system uses a central Web site, where users with appropriate security credentials like correct user name, password, and encryption key can deposit files related to the research processes; implement automatic workflow processes for dictation, transcription, and coding processes; view work and project flows and progress; and schedule appointments and stipulate task for other users or team members. The system improves research efficiency and lowers research costs. This is achieved through a streamlined Web site portal offering best practice security, enhanced ethics compliance, limited or reduced redundancy between processes and team members, and accurate information on the process and state of each particular research project. The software also provides team building and mentoring activities through the use of project reporting, a bulletin board, discussion forums, and team feedback.

BACKGROUND AND CHALLENGES

The research paradigm and context within which IPP-SHR operates presents unique challenges. Although the program has developed gradually over the last decade, it has only recently evolved to the level of national and international research data collection and collaboration. As a qualitative research program with a focus on the human interface of health care, the challenge is collecting and managing the magnitude and complexity of data gained from naturalistic methodologies over extensive geographical areas. This section details the challenges and problems associated with running a decentralised, location unspecific

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