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An Information System for Psychotherapy Research using Expert Commentary of Videotaped Expertise

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at Massey University

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Abstract

This project looked at the domain of psychotherapy research and asked the question - How can Information System's technology and methods be applied and developed to serve this domain's current needs? Review of the psychotherapy research literature identified 'astute observation and careful description' as the most productive next step in research efforts. As one response, EXpert Commentary of Videotaped Expertise (EXCOVE) was developed as a Knowledge Elicitation (KE) approach. EXCOVE aims to maximise the quality of observation and description of psychotherapy processes. EXCOVE is the collection of expert commentary on specific videotaped, expert-executed events. This strategy aims to retain the advantages of open questioning, minimise the possibility of copious and inaccurate data, and trigger and bring to consciousness the viewing expert's cognitive processes. Psychodrama was chosen as the psychotherapy of focus. Six psychodrama sessions totalling seven hours were videotaped and at least four expert commentaries on each session were collected using the EXCOVE approach.

A computer system was then required to manage this data and to assist in the various qualitative-type analyses envisaged for the data. However, Computer-Assisted Qualitative Data Analysis Software (CAQDAS) were limited in their abilities to meet these requirements. Therefore, a computer system called Flexible Environment for Research And Learning (FERAL) was developed. FERAL's behaviour was modelled on a *sheets-of-paper* metaphor which is proposed as an improvement to some aspects of existing CAQDAS.

The collected data was managed in a FERAL application and various analysis tasks were completed with facilities developed in FERAL. Five psychodrama topics were investigated - *phases, doubling, mirroring, unpredictability, and action*. Results of the investigations appeared to provide some useful contributions to the understanding of psychodrama. The results also indicated that data collected using EXCOVE and its various mechanisms were useful. FERAL was found to be useful during analysis, particularly the data co-ordination facilities and the *sheets-of-paper* interface.

The project resulted in a working information system for psychodrama that contained a sufficient amount of data to be useful for analysis of various psychodrama topics. The process of developing an information system for this application domain also resulted in the identification of innovations in KE and CAQDAS and their initial verification in a live application.

Preface

In 1994 I completed a post-graduate degree in computer science enthusiastic about the creative possibilities of computers. At the same time I was invigorated and inspired by the positive changes I was achieving through participation in a range of psychotherapies. I was keen to continue exploration in both these areas and also study for a PhD. Fortuitously, the new appointment to the Chair of Information Systems, Professor Jon Patrick, was also a psychotherapist and able to bridge the two fields. He assisted me to integrate these two interests in a PhD project with himself as the chief supervisor.

This thesis presents the work done in this project. Chapter one outlines the research questions posed by the research and provides an overview of the research process and rationales for the approaches taken. Chapter two illustrates some of the challenges facing psychotherapy research and introduces EXpert Commentary Of Videotaped Expertise (EXCOVE) an approach to data collection or knowledge elicitation developed as a response to these challenges. Chapter three presents psychodrama, the psychotherapy of focus, giving background information and details of areas that are subjects of later analysis and investigation. Chapter four describes EXCOVE from the perspective of IS by discussing the nature of expertise, the scope of KE and detailed discussion of the important mechanisms of EXCOVE: expert commentary, video recording, and multiple commentary. Flexible Environment for Research And Learning (FERAL) is a computer system developed to organise the data collected through EXCOVE and to provide analysis tools. Chapter five critiques Computer-Assisted Qualitative Data Analysis Software (CAQDAS), the family of computer systems FERAL belongs to. The merits and limitations of CAQDAS are outlined and the innovations required are highlighted. Chapter six outlines the development of FERAL and presents its functions. Chapter seven describes the process of data collection using EXCOVE. Chapter eight presents the analysis done on the data using FERAL. And Chapter nine concludes by discussing the contributions of the project.

Publications

The publications that have been generated from this project so far are:

Carter, P. (1994). Towards a definition for spontaneity. *Australian and New Zealand Psychodrama Association, Inc. Journal*, 3, 39-40.

Carter, P., & Patrick, J. (1997, April). *Expert Commentary on Videoed Expertise: An approach to knowledge elicitation in little-understood complex domains*. Paper presented at the 3rd Pacific Asia Conference on Information Systems, Brisbane, Australia.

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The psychodrama community were supportive and open to look at themselves. Paddy Paltridge's enthusiasm at the beginning of the project reassured me that such a project would be worthwhile and workable from a psychodrama point of view. The willingness of Dr. Max Clayton to give his time and support was especially welcome and constructive. The opportunity to deepen my study of psychodrama and get to know several leading practitioners personally has been satisfying and productive. My thanks also to all the participants in the video sessions and the expert commentators.

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