Chapter 12
Poker Gambling Virtual Communities:
The Use of Computer-Mediated Communication to Develop Cognitive Poker Gambling Skills

Adrian Parke
University of Lincoln, UK

Mark D. Griffiths
Nottingham Trent University, UK

ABSTRACT

Internationally, the prevalence of online poker gambling is estimated to be between one percent and eight percent of the general adult population. In relation to these estimated prevalence rates, the potential for addictive behaviour and the paucity of theory, online poker is an important concern for public health. Individuals may seek knowledge that will assist in developing poker gambling skill via virtual community interactions. In this paper, the authors use a virtual ethnography design to observe knowledge creation, transfer, and retrieval processes within a poker-focused virtual community. The paper develops current knowledge and understanding of how computer-mediated communication (CMC) is used by poker gamblers to develop their executive cognitive skills and enhance their proficiency. Two independent poker gambling virtual communities were observed for a six-month period. Data were collected through participant observation, and content analysis was used to identify emergent themes. Two central behavioural themes emerged from the participant observation (i.e., 'Experiential Reporting' and 'Development of Poker Skill'). The implications of poker gambling knowledge creation, transfer, and retrieval via CMC on responsible gambling are also discussed.

DOI: 10.4018/978-1-4666-1858-9.ch012

INTRODUCTION

Internationally, the prevalence of online gambling is currently estimated between 1.2% and 8.1% of the general adult population (LaPlante, Kleschinsky, LaBrie, Nelson, & Shaffer, 2009). Crucially, the increasing participation rates in poker gambling (LaPlante et al., 2009) renders online poker gambling an important area of research and worthy of detailed investigation. It has been hypothesised that the structural and situational characteristics of online poker may act as risk factors for the development and maintenance of problem gambling (Griffiths, Parke, Wood, & Parke, 2006; Griffiths, Parke, Wood, & Rigbye, 2010; Wood, Griffiths, & Parke, 2007). Fundamental to the concern regarding online poker as a potential risk factor for problem gambling is the capacity for skill to influence gambling outcomes. According to Dickerson (1993), gambling activities that require skill, or at least are perceived to be influenced by player skill, are more likely to cause impaired control and motivate further gambling despite experiencing loss. From a problem gambling perspective, Toneatto, Blitz-Miller, Calderwood, Dragonetti, and Tsanos (1997) found that in a population of problem gamblers, the more a gambling activity was related to skill, the greater the amount of cognitive disorders were identified. Fundamentally, a large number of research studies clearly show that there is a strong relationship between perception of control (i.e., the impact of perceived *gambling skill*) and motivation to gamble (Griffiths, 1994; Ladouceur & Mayrand, 1987; Langer, 1975, 1978; Rogers, 1998).

The objective of this research study was to explore the use of Computer-Mediated Communication (CMC) in developing poker skill by identifying behavioural processes observed within online poker virtual communities. It was anticipated that through analysis of observational data, the potential relationship between online poker skill development via CMC, and cognitive biases related to problem gambling (i.e., illusion of control) would be provided, and therefore produce impetus and direction for future research.

Poker, in contrast to most gambling activities, is a game that has scope for the player's behaviour to influence the success of the wager because of the existing non-random parameters within the game structure. The present study focused on the poker variant *Texas Hold'em*, which is the most prevalent poker game being participated in online, and also it is considered to be the most strategically complex poker variant that is widely available (Billings, Davidson, Schaeffer, & Szafron, 2002). It is proposed that probability of success in poker gambling is determined by a combination of application of partial mathematical analyses (i.e., mathematical analyses with imperfect information, and ad hoc *expert experience* (Sklansky & Malmuth, 1994). Expert experience in poker gambling is a difficult concept to satisfactorily define. Fundamentally, expert experience relates to various cognitive interpretational and representational skills required to be a successful poker player. Billings et al. (2002) have identified five required attributes that need to be included in an algorithm that would provide strategy to enable a poker gambler to perform at a very high level. These attributes are *Hand Strength*, *Hand Potential, Bluffing, Unpredictability*, and *Opponent Modeling*.

Hand Strength and Hand Potential are skills that are based on mathematical analysis of probability and can therefore be grouped as objective probability skills. Hand Strength is a computation of the probability of winning based on cards held by the gambler, the number of players remaining in the game, the betting position of the remaining players, and the probability of their possible hands, in order to assess the strength of one's starting hand. Hand Potential is similar to Hand Strength. However, Hand Potential is a computation of probability of one's hand winning in response to community cards being presented. For example, if a player received 'King King' as a starting hand (referred to as *hole cards*), the