

Virtual social capital: The way forward to creating peer-to-peer  
value and positive social outcomes in a virtual setting

By Michael Kirkwood

A thesis submitted to the  
Auckland University of Technology  
in partial fulfilment of the requirements for the  
Master of Business degree (MBus)

2016

Faculty of Business and Law  
Auckland University of Technology  
Primary Supervisor: Dr Crystal Yap

# Table of Contents

List of Figures.....	4
List of Tables .....	5
Attestation of Authorship .....	6
Acknowledgements .....	7
Abstract .....	8
Chapter 1: Introduction.....	10
1.1 Introduction .....	10
1.2 Background .....	12
1.2.1 Harmful consumption of alcohol and drugs.....	12
1.2.2 Smoking and obesity.....	13
1.3 Problem statement .....	14
1.3.1 Gaps in the literature.....	14
1.4 Research objectives .....	16
1.5 Research question .....	16
1.6 Significance and expected contribution of the study.....	16
1.7 Organisation of Thesis .....	17
Chapter 2: Review of literature.....	19
2.1 Social capital theory .....	19
2.1.1 Origins of social capital, functional descriptions and definitions .....	19
2.1.2 Features of social capital .....	21
2.2 What are the dimensions of social capital?.....	23
2.2.1 Structural dimension .....	23
2.2.2 Relational dimension.....	25
2.2.3 Cognitive dimension.....	28
2.3 Social capital an interdisciplinary concept .....	30
2.4 Value Co-creation .....	31
2.4.1 Value co-creation and social capital .....	32
2.5 Virtual social capital .....	33
2.5.1 Virtual social capital research .....	34
2.6 About this research .....	37
2.6.1 Study context .....	37
2.6.2 Research objectives and scope of the study .....	38
2.7 Chapter summary.....	38
Chapter 3: Methodology.....	39
3.1 Qualitative research design .....	39
3.2 Netnography - QSR NVivo 10 Software Package .....	40
3.3 Content analysis.....	41
3.4 About the websites (Data).....	42

3.5 Procedure.....	42
3.5.1 Sampling .....	42
3.5.2 Data collection.....	43
3.5.3 Data analysis.....	44
3.5.4 Manual coding.....	45
3.5.5 QSR NVivo 10.....	45
3.6 Chapter summary.....	45
Chapter 4: Findings and Discussion .....	46
4.1 Peer-to-peer activity: The foundation of Virtual social-capital.....	46
4.2 Structural ties and the composition of the network .....	46
4.3 Trusting, non-judgemental social relationships.....	49
4.4 The role of communication, narratives and shared beliefs .....	54
4.4.1 Shared beliefs .....	56
4.5 Conclusions regarding the formation of Virtual social capital in the DS community.....	57
4.6 The value and resources co-created and distributed within the virtual network. ....	58
4.6.1 Narratives of experience and the staging of emotion .....	58
4.6.2 Altruistic value .....	61
4.6.3 Emotional support and value .....	62
4.6.4 Religious support and belief.....	63
4.7 Concluding statements.....	64
4.8 Chapter summary.....	64
Chapter 5: Conclusion and Implications .....	65
5.1 Summary of findings .....	65
5.2 Policy and practice implications .....	66
5.2.1 Virtual peer-support and social capital.....	66
5.2.2 The role of family and friends in addiction recovery .....	67
5.3 Theoretical implications.....	67
5.4 Limitations of the study .....	69
5.5 Areas for further research .....	69
References .....	71
Appendices .....	75
Appendix (A) Final collapsed coding scheme .....	75
Appendix (B) Coding tabulations table.....	76
Appendix (C) coding exemplars .....	77
Appendix (D) Roll call data.....	83
Appendix (E) Table of membership .....	84

## List of Figures

Figure 1: Formation of virtual social capital in the DS community.....	57
--	----

## List of Tables

Table 1: Functional descriptions and definitions of social capital.....	20
Table 2: Data - discussion threads.....	44
Table 3: Examples of the “Roll call” .....	47

## Attestation of Authorship

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material published or material written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning."

AUT Master of Business candidate

Michael James Kirkwood

Student ID: 1125924

Date: March 31<sup>st</sup> 2016

Signed \_\_\_\_\_

## Acknowledgements

I would like to take this opportunity to acknowledge and express my gratitude to the key people that supported me throughout the duration of my degree and this particular research. Firstly, I would like to thank my partner for whom I have shared this journey with. We have spent many nights and weekends working on our respective research. It has not been easy, rather it has been one of the most difficult experiences of my life. However, it has been bearable because you have been with me every step of the way. "Thank you, Jaimee." I would also like to thank my in-laws who have provided me substantive support and another family, thank you, Steve and Ann. I would also like to thank my father, Tauke and his wife Yvonne who are the reason I am here today.

I would also like to acknowledge my son who has witnessed my hard work and determination. "I hope you see that hard work pays off."

And finally, I would like to give praise to my academic supervisor, Dr Crystal Yap, whom I have enjoyed working with immensely. I consider myself very lucky to have been able to work with Crystal and I look forward to continuing on with her in my next academic adventure.

## Abstract

The harmful consumption of alcohol, illicit drugs, prescription medicines, tobacco and food present a complex, yet common set of problems for large proportions of individuals globally. Addictive behaviours and the over consumption of harm-related consumables has become common place with excessive consumption a dominant theme within how people consume. In response to this issue, a promising area of research that may provide positive and plausible social outcomes in relation to harm-related consumption, specifically drug and alcohol addiction, is virtual social capital and peer-to-peer value co-creation in computer-mediated environments. As such, scholars have become increasingly interested in the application of virtual social capital within the context of health and well-being.

What we know about the constitution and formation of virtual social capital is largely based upon previous work. And although some attempt has been made to establish how virtual social capital is formed in health-related virtual communities, fundamental questions remain due to the complex nature of virtual social capital and the multiple dimensions that constitute in its formation. Furthermore, virtual social capital is held to make available key resources, assets and value. However, there is seemingly a lack of research that explores and accounts for the different types of value and resources that are created through this process. With this in mind, the purpose and primary objectives of this research are to explore how weak-tie, peer-to-peer social interactions contained within a computer-mediated peer-support network forms virtual social capital. The secondary objective of the research is to reveal the different types of value and resources that are co-created, and distributed within the virtual network by way of the social interactions that take place.

The research methods applied within this research were qualitative in nature. As such, netnography was chosen as the most relevant and suitable data collection technique in relation to the objectives and purpose of this research. The data utilised was collected from a publicly available source. Furthermore, a conventional content analysis was deployed using both inductive and deductive approaches in order to facilitate the research objectives.

The findings of this research indicate that trusting relations and goodwill are significant features in the efficient development of social capital and valuable assets. However, cognitive resources



such as shared narratives, language and systems of belief were found to be the principal components by which virtual social capital and value are formed in the virtual network.

The findings of this research provide new insights concerning virtual social capital, extending the research stream and integrating aspects from other research areas. Overall, the theoretical framework of virtual social capital developed from the findings contributes knowledge to the existing research by illustrating the significant role that cognitive resources play in the efficient co-creation of value and the development of virtual social capital. Although trust was also found to be a significant contributor to social capital formation, communication is the primary means by which trusting social relations can be developed in virtual support networks.

# Chapter 1: Introduction

## 1.1 Introduction

Humans are dynamic, social creatures. As such, we possess a fundamental need to form and cultivate complex webs of relationships, commonly referred to as networks. These networks of relationships often play an integral and recurrent role throughout our lives, socially influencing our belief systems, values and potential behaviours (Hoyer & MacInnis, 2008). In essence, who you know effects what you know. Just as important, networks also connect people together via connections which vary in terms of closeness, connectedness and frequency of interaction, providing a bridge to new opportunities, novel sources of information (Granovetter, 1973) and meaningful social bonds (Krackhardt, 1992). Thus, people learn, garner value and potentially produce positive social outcomes for one another through sociability and social interaction, effectively co-creating experiences and differing types of value through peer-to-peer activity. Social capital theory captures this idea based on the notion that people achieve more when they work together, gaining resources and value from their connections to one another and the type of these connections (Burt, 1992; Putnam, 1995; Paxton, 1999). Social capital, which originates from sociology and political science, explains how individuals within particular communities or networks cooperate with one another to overcome social dilemmas through collective action (Lochner, Kawachia, & Kennedy, 1999), facilitating change on both an individual and collective level. In comparison, value co-creation is also greatly dependent on sociability in the form of peer-to-peer interaction, whereby value in various forms is jointly created via interactive activities from which peers integrate their resources with different actors, engaging, combining and sharing (Uhrich, 2014). As a consequence, these distinct theories overlap in a sense. Namely, they are both dependent on social interactions that take place within networks, which in the modern age occurs not only within physical space but virtual space, which has rapidly become a principal method to which people now communicate, interact and socialise (Wellman, 2001).

With the advent of the World-Wide-Web, people today have access to a wider array of potential connections from which vast networks can be potentially formed, linking people, organisations, and knowledge across considerable distances, at any time on the basis of social exchange (Wellman, 2001). With this in mind, the way in which people now socialise and interact has shifted with the realisation that the online or virtual world is a site for complex social activity that is both

original and extended from offline life (Williams, 2006). Consequently, modern consumers are increasingly turning to computer-mediated communication for key information (Walther, 1993), from which to share and base their decisions upon. In a broad sense, consumers now utilise an array of varied web-based information sources to assist in their decision-making processes and other social purposes. These sources include commercial websites, advertising, social media platforms and interest-based virtual communities. At any given time, there are millions of people online, who communicate socially, exchanging, sharing and collaborating. Subsequently, new tools, ideas and concepts must be explored, developed (Williams, 2006) and extended to explain the social phenomena that exist in the virtual realm. One such merited area of research for exploration is virtual networks and computer-mediated communication.

Virtual networks or communities, are defined as groups of people who regularly interact online, sharing common goals, ideas, values (Owston, 1998) and practices (Chiu & Hsu, 2008). These virtual networks enable their membership to communicate social information through activity and interaction, creating group specific meanings, negotiating group specific identities and enabling the formation of group specific relationships (Kozinets & Kellogg, 1999). Above all, virtual networks potentially allow members to co-create group specific experiences, value, resources and potential positive outcomes, via the peer-to-peer interaction that takes place (Loane & D'Allessandro, 2013). In recent years, there has been an increasing interest placed upon the study of support orientated virtual networks within the health and well-being context. Research within this field has indicated that people frequent online support groups for the socially supportive communication that takes place within such communities. For example, informational support was found to be a key variety of social support, offering guidance to community members in coping with challenges related to medical conditions such as irritable bowel syndrome (Coulson, 2005), menopause (Foderaro, 1995) and debilitating illnesses such as HIV and AIDS (Phoenix & Coulson, 2008). Furthermore, research has also demonstrated the benefits of computer-mediated communication as a potential source of improved wellbeing, enabling some individuals to communicate and foster beneficial interpersonal relationships (Magsamen-Conrad, Billotte-Verhoff, & Greene, 2014), improve mood state (Phung, Gupta, Nguyen, & Venkatesh, 2013) and provide peer emotional group support for recovering alcoholics and drug addicts, supplementing real-life meetings and recovery groups. Overall, the research emphasises the importance and value that virtual networks play within the lives of certain individuals, indicating that the virtual

world is inherently social (Wellman, 2001), and highly connective (Wellman, Hasse, Witte, & Hampton, 2001) in the sense that it enhances people's ability to come together, interact, exchange and share, based on common issues, common goals, shared interests and values (Owston, 1998).

## 1.2 Background

### 1.2.1 Harmful consumption of alcohol and drugs

The harmful consumption of alcohol, illicit drugs, prescription medicines, tobacco and food present a complex, yet common set of problems for large proportions of individuals globally. Addictive behaviours and the over consumption of harm-related consumables has become common place with excessive consumption a dominant theme within how people consume. The effects of harm-related consumption are diverse, devastating and are not restricted to the user. Rather, harm-related consumption has dire effects throughout society, affecting individuals, families, communities and the wider public (World Health Organisation, 2016; Berl Economics, 2009). Within New Zealand alone, drug and alcohol use have become commonplace with statistics indicating that 49% of adults aged between the ages of 16 – 64 years have used illicit drugs for recreational purposes in their lifetime and one in six adults have used illicit drugs in the past year (Ministry of Health, 2010). Common problems reported by those individuals who have used drugs in the past year include harmful effects on financial position, work or study opportunities, friendships and home-life (Ministry of Health, 2010), illustrating the grip that drug and alcohol abuse can have on a person's life, their relationships, income, health and mental well-being.

Another dominant feature of addiction is the substantial cost it poses to governments and its citizens. Overall, harmful drug use in New Zealand during 2005/2006 caused an estimated \$6.5 billion worth of social costs made up from \$4.5 billion of tangible resource costs and \$1.9 billion worth of intangible welfare costs. In total, these costs equated to the GDP of New Zealand's agricultural or finance industry (Berl Economics, 2009). Alcoholism, binge drinking and a well-publicized drinking culture also present a dominant societal issue within New Zealand, with over 1,000 alcohol related deaths reported each year alongside thousands of alcohol-related accidents and assaults (NZ drug Foundation, 2015). Furthermore, over 120,000 New Zealanders are reported to suffer from alcohol-use disorder with alcohol being a factor in one-third of all reported

crime (New Zealand Ministry of Health, 2013). Of those affected by alcohol misuse, young people, Maori and Pacific peoples are especially prone to negative effects of alcohol (New Zealand Ministry of Health, 2013), demonstrating the importance of dealing with such issues for the benefit of those minorities who lack the resources, knowledge and support needed to overcome such complex and deep-rooted problems.

#### 1.2.2 Smoking and obesity

Smoking, obesity and the subsequent health problems associated with these harm-related consumption behaviours are prominent issues globally and within New Zealand, and although overall rates of smoking within New Zealand are on the decline, rates among Maori and Pacific peoples remain high. According to current statistics, 40.6% of Maori and 25.1% of Pacific peoples within New Zealand continue to smoke despite the 5,000 plus deaths attributed to smoking each year and government intervention programmes aimed at the cessation of smoking (Ministry of Health, 2015). Of equal concern, are the rising levels of obesity. Between 1980 and 2013, New Zealand has seen a steady rise in the prevalence of overweight and obese adults with rates increasing from 50% to 66% (Statistics New Zealand, 2015). Obesity rates among children have also increased with rates moving from 18% to 29% (Science media, 2014). According to OECD statistics from 2011, New Zealand is now the third fattest nation in the world behind Mexico and the United States. Those highest at risk of obesity are Pacific Islanders and Maori, with over 60% of Pacific islanders being classed as obese under OECD criteria followed by Maori at 45.5% (Statistics New Zealand, 2015). The effects of obesity have also been linked to rising rates of type 2 diabetes within New Zealand with over 240,000 documented cases and 100,000 undiagnosed cases reported by the New Zealand government. Maori and Pacific peoples are again most affected and are three times more likely to develop diabetes than other New Zealanders (Ministry of Health, 2013), further demonstrating the effect that harm-related consumption poses for minorities and the wider New Zealand public. Evidently these startling statistics indicate that harmful consumption is on the increase and poses a dire problem for specific groups such as those of low socio-economic classification, low educational background and particular ethnic groups, raising the question of how to best deal with these issues. One such promising area of research that may provide positive and plausible social outcomes in relation to harm-related consumption, specifically drug and alcohol addiction, is social capital and value co-creation in computer-mediated environments. This area of research may provide useful insight into how

loosely-tied networks of individuals come together online socially to co-construct collective change through value formation and resource availability. A study of this kind may chart a path towards dealing with such issues from the perspective of those most affected by such issues, including the addicts and those closest to them.

### 1.3 Problem statement

A large and growing body of literature has emphasised the importance that social capital plays in mobilising collectively available assets (Burt, 1992), value (Loane & D'Allessandro, 2013), resources (Nahapiet & Ghoshal, 1998), and mutual benefits (Putnam, 1995) through social interaction in differing social networks. As such, scholars have become increasingly interested in the application of social capital within the context of health and well-being. With this in mind, scholars have attempted to address the issues relating to social capital and health in a number of directions. Firstly, some studies have focused on the relationship between self-rated health and social capital with findings indicating that higher levels of social capital positively affect changes in self-rated health in relation to sufferers of chronic illness (Waverijn, *et al.*, 2014; Rocco, Fumagalli, & Suhrcke, 2014). Other recent studies have sought to demonstrate the importance of virtual social capital within virtual networks, noting its positive effect on mood (Phung, Gupta, Nguyen, & Venkatesh, 2013), self-esteem, life satisfaction (Johnston, Tanner, Lalla, & Kawalski, 2013), and the mental well-being of people affected by technology addiction (Magsamen-Conrad, Billotte-Verhoff, & Greene, 2014). Further research undertaken has also been able to establish links between virtual social capital and peer-to-peer value co-creation suggesting that the creation and maintenance of virtual social capital occurs as part of the creation of peer-to-peer value in virtual networks (Hajli & Hajli, 2013; Loane & D'Allessandro, 2013). Overall, these studies have been carried out in various settings including different age groups, different geographic locations and differing health-related virtual communities of interest and although many questions regarding social capital have been addressed, this area of research is far from being fulfilled.

#### 1.3.1 Gaps in the literature

What we know about the constitution and formation of virtual social capital is largely based upon previous work relating to community studies (Jacobs, 1965), civic engagement (Putnam, 1995), organisational advantage (Nahapiet & Ghoshal, 1998), and knowledge sharing in virtual networks (Chiu & Hsu, 2008). Although some attempt has been made to establish how virtual social capital

is formed in health-related virtual communities (Loane & D'Allessandro, 2013), fundamental questions remain, due to the complex nature of virtual social capital and the multiple dimensions that constitute its formation. The rationale for attempting to answer such questions resides in the idea that people tend to possess both strong and weakly-tied networks of relationships and that these opposing network types result in different types of interaction and subsequent value and resources (Levin & Cross, 2004). For example, weak-tie connections which are best typified as distant coupled with infrequent interaction (Granovetter, 1973), are held to be more abundant due to the low costs associated with acquiring and maintaining these types of relationships (Hansen, 1998; Steinfield, Ellison, & Lampe, 2008). Benefits associated with weak-ties reside in their ability to bridge people together from disparate regions of a social system (Granovetter, 1973) affecting the types of interactions (Williams, 2006), and the subsequent resources trafficked within a given network (Levin & Cross, 2004). Weak-tie networks have been shown to help workers find jobs (Granovetter, 1973), facilitate inter-unit resource exchange (Hansen, 1998), improve intellectual-capital (Nahapiet & Ghoshal, 1998), and forge meaningful social relationships (Mathwick, Wiertz, & Ruyter, 2008). Therefore the type of connections and resulting social interactions within networks play an integral role in the formation of virtual social capital and subsequent value created and distributed within online peer-support networks. With this in mind, further investigation is warranted that places emphasis on weak-tie connections and the online social interactions that take place within virtual peer-support communities to better explain the phenomena and its underlying mechanisms.

Another area for further research lays in the value, resources and benefits associated with virtual social capital. Research within virtual networks has found that online communities offer different types of value and resources. For example, research has demonstrated that computer-mediated communication enables individuals the ability to communicate and foster beneficial inter-personal relationships which improved their mental well-being (Magsamen-Conrad, Billotte-Verhoff, & Greene, 2014), enhanced intellectual-capital (Chiu & Hsu, 2008), and built specific expertise (Mathwick, Wiertz, & Ruyter, 2008). Research within the health and well-being context which links peer-to-peer interaction and support with virtual social capital suggests, that value is co-created through sociability and that virtual social capital is an outcome of the peer-to-peer value creation process (Loane & D'Allessandro, 2013). That is, the value is generated when social goods and support are exchanged, resulting in beneficial outcomes such as improved service encounters

and better-improved quality of life (Loane & D'Allessandro, 2013). Other lines of research not directly associated with social capital have postulated that five key types of social support exist within virtual networks. These include informational, emotional, esteem, network support and tangible assistance (Coulson, 2005; Phoenix & Coulson, 2008). Each of these types of support constitute a valuable resource from which further value is derived in the form of treatment guidance, coping with challenges and the management of health-care (Coulson, 2005). To date, a number of studies have demonstrated the existence of different resources and value and although much is seemingly known, the full extent of the potential value co-created and distributed within virtual networks remains unclear.

#### 1.4 Research objectives

The purpose and primary objectives of the following research are to explore how weak-tie, peer-to-peer social interactions contained within a computer-mediated peer-support network, forms virtual social capital. It should also be mentioned that the peer-support network under study is a dedicated online support network for addiction and the friends and family of addicts. The secondary objective of the research is to reveal the different types of value and resources that are co-created, and distributed within the virtual network by way of the social interactions that take place.

#### 1.5 Research question

Based on the abovementioned research objectives the following research question is submitted.

RQ1:

*How do weak-tie peer-to-peer social interactions in a computer-mediated peer-support network form virtual social capital and what value and resources are co-created and distributed within the network?*

#### 1.6 Significance and expected contribution of the study

The expected contribution of this study is likely to reside in its ability to further explain how virtual social capital is formed within virtual social networks. However, even more compelling yet is the expected contribution that the exploration of the differing types of value and resources co-created is set to reveal. It is expected that alternate sources and varied types of value will be uncovered within this research, bringing together concepts from other fields of research to explain this social



phenomenon. A study such as the one proposed will integrate existing research in order to extend currently held ideas relating to social capital and peer-to-peer value, linking together concepts from differing lines of research including computer-mediated communication, online peer support and value co-creation. Further to this, the intended research will benefit the literary field by further exploring how weakly-tied individuals in cyber-space interact under differing social conditions. Although research within the field of health and well-being has been undertaken in the past, minimal research studies have attempted to apply virtual social capital, peer-support and value co-creation within the context of alcohol and drug addiction. Therefore, a study of this magnitude is set to provide a substantive theoretical contribution to the overall body of knowledge regarding social capital.

From a managerial and public policy perspective, the expected contribution of the research is of potential value to society and those impacted by addiction in differing contexts, including addicts and the family and friends affected by their misuse. By exploring the mechanisms which build virtual social capital, public policy makers may find it useful to see how networks of loosely-tied individuals who share a common interest can effectively co-create value, resources and potential positive social outcomes such as improved mental well-being, enhanced coping strategies, crisis interventions and enhanced decision-making in the face of addiction. Therefore, by understanding how the support structures that surround addiction deal with the issues faced, better-informed services, policies and cessation programmes may be developed which integrate facets of online communal-communication. This may potentially allow network members to collectively interact and express themselves with a degree of anonymity, in a manner that allows joint value to be realised. In light of this, new frameworks for addiction-based recovery that are inclusive of family, friends and the extended support network, may provide a positive way forward in dealing with the impacts of addiction and other harm related consumption, on the basis that prominent social issues are best dealt with by society at differing levels including both the community level and government level.

## 1.7 Organisation of Thesis

The following research is divided into five chapters. The first chapter provides an introduction to the topic and provides background to the research area under investigation. Furthermore, the significance of the study and expected contribution are also discussed to provide the reader with

the necessary background and motivation to continue. Chapter two provides a robust and detailed review of the relevant literature surrounding social capital, integrating literature that depicts its origins, development and constitution. Furthermore, the application of social capital within the classical and contemporary literature is also presented to illustrate its evolution into the virtual or online world. Thus, virtual social capital will also be introduced, accompanied by literature within the field of computer-mediated communication, online virtual communities and value co-creation. In this way, the basis of the literature review is to demonstrate what is already known in order to expose disparities within the research which can be effectively remedied by the purpose, objectives, findings and implications of this research. Chapter 3 discusses and outlines the methodological procedures used within this research, providing ample justification for the methods employed. Furthermore, the procedures deployed are also described in full alongside other facets of the research design. Chapter four presents a detailed discussion of findings and subsequent conclusions, followed by chapter five, which includes the managerial implications of the research, limitations of the study and areas for further investigation.

## Chapter 2: Review of literature

The following review of literature aims to shed light on virtual social capital and peer-to-peer value co-creation within computer-mediated, social environments. Due to the complex nature of social capital, a systematic exposition discussing the development, constitution and application of social capital within the contemporary and classical literature will be presented. Various viewpoints and positions will be examined within both the online and offline context in order to present a holistic depiction of social capital, demonstrating potential areas for further research and a robust theoretical foundation in-line with the research question and objectives. Furthermore, peer-to-peer value co-creation will also be introduced revealing the role and relationship that potentially exists between virtual social capital and peer-to-peer value co-creation.

### 2.1 Social capital theory

#### 2.1.1 Origins of social capital, functional descriptions and definitions

Within academic research, social capital theory has been defined and operationalized in a number of ways in relation to a number of disciplines and areas of research, such as economic theory, social control, family behaviour, community life, democratic governance and health (Hawe & Shiell, 2000). The term social capital, is thought to have initially appeared within the field of community studies (Nahapiet & Ghoshal, 1998) during the 1960's, which emphasised its central importance to the survival and functionality of city neighbourhoods, comprising of networks of strong, crosscutting, personal relationships developed over time that provide the basis for trust, cooperation and collective action in such communities (Jacobs, 1965). However, the first systematic analysis of social capital within a literary capacity was not brought to attention until 1980 by the noted sociologist Pierre Bourdieu (Portes, 1998), who defined social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition" (Bourdieu, 1980, p.2). Bourdieu went on to publish several other articles and books (Portes, 1998), later redefining social capital as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu & Wacquant, 1992, p.14).

Views regarding the definition of social capital have produced many differing perspectives across varying fields over time. Subsequently, a consensus regarding an all-purpose, overarching definition of social capital which is applicable to multiple fields of research, has at this stage eluded academics. Rather, many studies have sought to produce slightly differing definitions and functional descriptions of social capital, which contain stark similarities and account for varied types of social capital. The following table contains examples of these definitions from a variety of literary fields.

**Table 1:** Functional descriptions and definitions of social capital

<u>Reference</u>	<u>Definition</u>	<u>Discipline / Field</u>
Portes & Sensenbrenner (1993, p.1323)	<i>"Those expectations for action within a collectivity that affect the economic goals and goal- seeking behaviour of its members, even if these expectations are not oriented toward the economic sphere."</i>	Economics / Sociology
Putnam (1995, p.2)	<i>"Social capital refers to the features of social organisation such as networks, norms, social trust that facilitate coordination and cooperation for mutual benefit."</i>	Sociology / Civic engagement
Portes (1998, p.6)	<i>"The ability of actors to secure benefits by virtue of membership in social networks or other social structures."</i>	Sociology
Rose & Clear (1998, p.454)	<i>"Social capital refers to the social skills and resources needed to effect positive change in neighbourhood life."</i>	Criminology
Nahapiet & Ghoshal (1998, p.243)	<i>"The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit." "Social capital thus comprises both the network and the assets that may be mobilised through that network."</i>	Organisation studies / Management
Paxton (1999, p.89)	<i>"Social capital is the idea that individuals and groups can gain resources from their connections to one another (and the type of these connections). These resources can be used to produce certain goods."</i>	Sociology
Adler & Kwon (2002, p. 23)	<i>"Social capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor."</i>	Management
Mathwick, Wiertz, & Ruyter (2008, p.832)	<i>"An intangible resource which is embedded in and accumulated through a specific social structure."</i>	Virtual communities and knowledge transfer

With regard to the definitions depicted in table 1, three central themes are evident. Firstly, they all constitute some aspect of social structure. Secondly, social capital is fundamentally driven by collectivism and resource availability at both the individual and group level (Yip, *et al.*, 2007). At one level, it is a resource available to, and chosen by individuals, yet is dependent on their connections to one another and cooperation to secure benefits. On the other hand, it is posed as a community level resource that members can tap into to achieve collective goals that cannot be accomplished by individuals alone (Yip, *et al.*, 2007). Therefore, at both the individual and collective level social, capital is dependent on the notion of many, meaning that working together produces more social goods than would be possible if individuals did not. Lastly, any mutual benefit, resource or source of value embedded, derived or gained is only possible through social interactions, social activity and cooperation. Overall, these common themes indicate that social capital comprises of both the structure of social relations (*network and interactions within*) and the assets that are potentially mobilised through that particular network (Burt, 1992). Therefore, it is concluded that social capital is a dynamic resource that is made possible through relational interactions facilitated by trust, goodwill and cooperation, enabling individuals within networks, real or virtual the ability to create mutual benefit and accumulate freely available assets which are collectively and individually appropriable.

#### 2.1.2 Features of social capital

Social capital at its root captures the idea that actors within a network structure accrue, acquire and claim access to resources possessed by the network through their deliberate connectedness, sociability, and interaction. Generally speaking, these networks tend to be orientated around a governing influence such as community, organisational advantage (Nahapiet & Ghoshal, 1998), health, culture, social causes (Hawe & Shiell, 2000), and special interests. More importantly, social capital features properties of social life, such as trust, norms and networks of relations, which in-turn promote cooperation between actors within social networks, enabling resources to be drawn from the network at any time and by any actor, on the basis of goodwill and reciprocation, effectively enhancing society's overall efficiency (Putnam, 1993). Resources attributed to social capital can be found in various forms such as useful information, new knowledge, personal relationships or the capacity to organise groups to facilitate change (Paxton, 1999). For example, consider a neighbourhood community with high levels of existing social capital. In that community residents know each other well, talk to each other frequently and,

therefore, may feel comfortable leaving their front doors unlocked and allowing their children to walk alone to neighbourhood parks. The crime rate may be lower than other neighbourhoods and the presence of utility and goodwill may be higher (Putnam, 1995). These benefits are only made possible due to the trust, reciprocation, normative influences and social connections that have been built over time as a valuable resource through interaction, which is freely distributed within the network. The relationships bound within such a community constitute a valuable resource for the conduct of social affairs, providing its membership with collectively-owned capital, a credential which entitles network members to credit in various forms (Bourdieu, 1986).

In contrast, a community with insufficient levels of social capital where people do not know one another well and seldom interact, may result in a situation where the crime rate, levels of dissociative and anti-social behaviour become elevated. This effect is likely due to the communities' inability to self-regulate through established processes of social control such as normative behaviours and influence, which collectives commonly draw upon to enforce order (Rose & Clear, 1998). Consequently, parents and families within such a community may feel the need to secure their homes at all times, supervise their children away from the home and keep social interaction to a minimum. In this scenario, society's efficiency is severely impeded. Social trust, norms, reciprocation and systems of behaviours which lubricate cooperation have become non-existent. Furthermore, civic engagement within community-based organisations and initiatives such as lower-level political involvement, membership and attendance within community level organisations (Putnam, 1995) and community level socialising would be negatively affected, further disrupting the organisational structure of the community (Rose & Clear, 1998). Accordingly, access to key information and other resources needed to bring about positive change would be held by certain individuals, stifling the communities' ability to affect change (Putnam, 1993; Putnam, 1995), prompting further negative social conditions to emerge, due to a lack of social capital (Rose & Clear, 1998). By way of this illustration, it is possible to see how networks of individuals possess the ability to foster norms of generalised reciprocity and social trust, facilitating coordination, communication and enabling dilemmas of a given collective to be reconciled (Putnam, 1995). Therefore, those networks that possess extensive social trust and a willingness for cooperation are able to accomplish more than a comparable network without the presence of social trust (Coleman, 1988), making possible certain achievements that would otherwise remain unachievable in its absence (Putnam, 1993).

With the abovementioned key concepts in mind, the relevance and importance of social capital in relation to collective social dilemmas such as alcohol and drug addiction, obesity and smoking are evident. Social capital has been shown to manifest itself positively in communal settings presenting an ideal method for people to work together to tackle complex social issues at both the individual and community level. As such, issues relating to harm-related consumption are intuitively better facilitated from a collective standpoint. However, in order to establish functional networks that are able to address such issues, networks must be structured in an efficient manner and contain both relational and cognitive assets (Nahapiet & Ghoshal, 1998) in order for social capital to be established and formed in a manner that is beneficial. In the next section, the dimensions that constitute social capital will be discussed in detail.

## 2.2 What are the dimensions of social capital?

Views regarding the constitution social capital contend that social capital in both the offline and online context, consists of three distinct, yet related dimensions. These dimensions are the structural dimension, relational dimension and cognitive dimension (Nahapiet & Ghoshal, 1998; Burt, 1992; Chiu & Hsu, 2008).

### 2.2.1 Structural dimension

#### *Strong versus weak ties*

The structural dimension of social capital refers to the overall pattern of connections between actors (Nahapiet & Ghoshal, 1998) within a given social network. Namely, who and how you reach them and the presence, absence and configuration of ties that exist within the network (Burt, 1992). Network-ties provide access to resources. For example, who you know affects what you know. Subsequently, network-ties provide the access and foundation by which social capital in its various forms can be realised. Among the most significant facets of the structural dimension, the configuration of network ties describes the formation of linkages in reference to such measures as density, connectivity and hierarchy (Coleman, 1988). With this in mind, network ties are commonly referred to as either being strong or weak (Levin & Cross, 2004). Tie-strength, a concept ranging from weak-ties at one extreme to strong ties at the other, characterises the closeness or connectedness and frequency of interaction between parties (Hansen, 1999). The strength associated with a relational tie is a reflection of the amount of time, emotional intensity

and reciprocal intimacy that characterises the tie (Granovetter, 1982). In this light, a weak-tie is an interpersonal relationship that is best typified as distant, coupled with infrequent interaction (Granovetter, 1973). Weak-tie relationships are tenuous, there is a definite lack of closeness and the frequency of interaction between actors is less prevalent. However, weak ties tend to be more abundant due to the low costs associated with acquiring and maintaining these types of relationships (Steinfeld, Ellison, & Lampe, 2008).

In comparison, strongly-tied individuals tend to be much closer in terms of distance and more connected in relation to interaction frequency (Krackhardt, 1992). Therefore, strong-ties found within networks or social structures are those relationships between actors who know each other well, with interactions occurring frequently. Strong ties are commonly held to occur within relationships between close friends, family and intimates (Putnam, 1995). The interactions that occur bond people together, providing emotional support and a sense of closeness. Research concerning strong-ties has alluded to the substantive support that strong ties offer (Williams, 2006). For example, the research conducted by Krackhardt & Stern (1988, p.380), makes a strong case for the efficacy of cross-cutting strong ties as a conflict reduction mechanism, arguing that the existence of friendship ties between organisational units reduces conflict and facilitates cooperation, that in turn increases operational effectiveness in times of crisis. Interestingly, strongly-tied individuals are held to possess a greater motivation to be of assistance and are typically more available (Krackhardt, 1992) due to the history of interactions, emotional intensity and closeness that has been established over time. However, research regarding social capitals information benefits within multi-unit firms showed that project teams possessing strong ties with other units often took considerably longer to complete their tasks than those with weaker ties. Although these strong ties had information benefits, they were too costly to maintain (Hansen, 1998) and, therefore, less efficient, bringing into question the effectiveness of strong ties and advocating the potential strengths of weak ties.

A fundamental feature and key strength of weak ties lay in their ability to bridge people together from disparate regions of a social system (Granovetter, 1973). This ability to connect sparsely-knit people together effects the types of interactions and the subsequent information trafficked within a given network. For example, weak-ties are posed to be a source of novel (Granovetter, 1973) and non-redundant information (Levin & Cross, 2004), whereas strong ties are held to be sources of somewhat redundant information. This process is based on the assumption that strong



ties tend to bond similar people together and that these similar people cluster together, such that they are somewhat mutually connected (Krackhardt 1992; Granovetter, 1973). Therefore, those members contained within a strong tie network tend to be connected to others that are also close to the knowledge seeker. Subsequently, information obtained through such a network is more likely to be previously known and therefore already trafficked within the social network. Subsequently, strong-tie social interactions are less likely to produce innovation (Burt, 1992), due to the idea that innovation generally occurs through combining different knowledge, experience and diversity of opinion (Nahapiet & Ghoshal, 1998). Comparatively, weak-ties provide a wealth of previously un-trafficked, novel and non-redundant information as the diversity and width associated with weak-tie connections constitute a local bridge to various parts of the social structure that would otherwise remain disconnected (Granovetter, 1982). Therefore, weak-ties are better suited to provide new information from disparate parts of the social system (Granovetter, 1973), based on the logic that weak-ties lead to more people in differing life situations and, therefore, lead to a wider set of information and opportunities (Williams, 2006).

In general, the literature indicates that weak-tie relationships constitute connections that are easier to maintain, more efficient, produce greater informational benefits and provide access to a wider set of opportunity than do strong-ties. With this in mind, research regarding weak-ties within the context of computer-mediated communication and social capital presents an ideal area for further investigation, on the basis that the Internet provides a connective platform to an abundance of potential connections and networks from which social capital can be further explored.

### 2.2.2 Relational dimension

The relational dimension of social capital refers to those assets created and leveraged through relationships that people have developed with one another over time through a history of interactions (Nahapiet & Ghoshal, 1998). Key facets associated with this dimension include trust, trustworthiness (Putnam, 1993), reciprocity (Pretty & Ward, 2001), norms, sanctions (Coleman, 1988; (Putnam, 1995), obligations, expectations (Burt, 1992), and identification (Hakkanson & Snehota, 1995; Chiu & Hsu, 2008).

## *Trust*

Trust is a necessary component for social capital formation. Trust lubricates co-operation (Pretty & Ward, 2001) and without it the particular benefits and resources associated with social capital could not be realised (Fukuyama, 1995; Putnam, 1993). In this sense, trust in itself is valuable. Trust reduces the transaction costs between actors within networks and so liberates resources (Pretty & Ward, 2001). With reference to trust as a construct, it is suggested that there are two different forms of trust, (1) competence-based trust, which describes relationships in which an individual possesses the belief that another person or group is knowledgeable in reference to a given subject area, and (2) benevolence-based trust. Benevolence-based trust is the belief in honesty and goodwill. For example, the belief that an individual will not intentionally harm another if and when given the opportunity to do so (Levin & Cross, 2004).

## *Norms of reciprocity, sanctions, common rules & obligations*

Norms with reference to social capital refer to those behaviours and actions that bind sets of actors together (Coleman, 1990). Norms are the common shared behaviours and beliefs that are embedded within social systems which govern the expected and obligatory behaviours of those actors who belong to a specific social network (Coleman, 1988; Coleman, 1990; Portes, 1998). For example, the internalised norms of behaviour that are commonplace in modern society dictate a need for citizens to obey traffic rules, pay their debts on time and give to charity because they feel an obligation to conduct themselves in this manner (Portes, 1998). In this way, norms are those mutually agreed or handed down sets of behaviours that place the collective interests above those of the individual (Pretty & Ward, 2001). Norms imply that there is a consensus within the social system that the right to control certain actions of actors is held by the collective and that authority also resides with the collective (Coleman, 1990). With this in mind, sanctions are also normative in the sense that there is an expected penalty for non-compliance and that an effective sanction will hold accountable those actors who may not adhere to the authority of the collective and the internalised norms of behaviour embedded within the network (Pretty & Ward, 2001). Sanctions can be in many forms and are dependent on the network. For example, it may be considered inappropriate to abuse or ridicule another member of an online virtual community such as you might find on Facebook. This type of behaviour may be considered cyber-bullying and other members who witness such behaviour may intervene and advise the parties to cease this

type of interaction, potentially blocking membership to the network. The sanction received is based on the behavioural norm that cyber-bullying is not acceptable. In comparison, another member of the network may be more constructive and supportive in the manner in which they provide critical feedback. As such, sanctions can be viewed as a mutually agreed penalty, they are an outcome of action and behaviour that is deemed undesirable within that particular network. Sanctions in this manner govern the network, providing members with an effective boundary for social behaviour in line with societal expectations and common rules. Norms and sanctions are necessary for the fluidity of interactions and for the stability of social networks as they give confidence to members who invest deeply in collective activities based on the knowledge that others will do so too (Valenzuela, Park, & Lee, 2009), reducing the need for more formal controls (Adler & Kwon, 2002). Mutually agreed sanctions ensure that those who break the rules are aware of associated penalties (Pretty & Ward, 2001).

Norms of reciprocity, which are a fundamental component of social capital, captures the idea that donors provide privileged access to resources in the expectation they will be fully repaid in the future (Portes, 1998). However, repayment in reference to social capital is not repayment by the individual member or members that drew upon the aforementioned resources back to the donor. Rather, the donation of the resource is to the collective and not to specific actors within the network. Resources in this fashion are embedded within the social structure and appropriable by any actor within the network (Portes, 1998). Norms of reciprocity and exchange increase trust as those actors who are bound to one another through institutionalized relationships of mutual acquaintance and recognition (Bourdieu & Wacquant, 1992), do so in the knowledge that any resource made available may be unrequited at the moment of exchange but over time is repaid and balanced in full (Pretty & Ward, 2001).

### *Identification & Solidarity*

According to Nahapiet & Ghoshal (1998, p.256), "identification refers to the process whereby individuals see themselves as one with another person or group of people." Comparatively, Chiu & Hsu (2008, p.1877) make reference to identification as an "individual's sense of belonging and positive feeling toward a virtual community." With these definitions in mind, it is presumable that identification in the context of social capital is a result of the relationships and member bonds that form over time within networks. These relationships are based, built and maintained by the

interactions that occur between actors, which reinforce a member's sense of belonging and identification with other members and the network.

Another interesting and relative concept within the literature concerning social capital is bounded solidarity. Bounded solidarity focuses on the situational circumstances which lead to the emergence of principled group-orientated behaviour, such as those that occur when individuals are bound together as a result of common situations (Portes, 1998). As such, bounded solidarity is a mechanism of social capital which emerges when actors within a social structure or network endure similar hardships or situations that bind them together (Portes & Sensenbrenner, 1993). Networks in this sense are bounded, indicating that actors share a bond, have ties to one another and are set apart from other social systems. That is, the network is closed to others outside the structure who do not share the kinship and shared values attributed to the situational circumstances that bind them together. Thus, bounded solidarity in social structures potentially fosters and enhances identification and acts as a fundamental source of social capital.

Overall, the relational dimension of social capital encompasses all the necessary social elements needed to hold functional networks together. Trust and trustworthiness based on goodwill encourages benevolence, enhancing collective cooperation which enables resources and value to become liberated (Pretty & Ward, 2001). Norms and sanctions give further confidence to network members based on the collectively recognised sets of beliefs and behaviours shared within the network (Coleman, 1990). Members understand that their efforts within the network are for the collective good and that at some stage their donation will be re-paid. These relational components are also linked to identification, in the sense that trusting social relations and norms of reciprocation foster further goodwill within the community, creating and sustaining strong social bonds which foster a sense of belonging and solidarity between members, strengthening the network and setting it apart from other social structures.

### 2.2.3 Cognitive dimension

The cognitive dimension of social capital refers to those resources which provide shared representations, interpretations and systems of meaning amongst groups or parties (Cicourel, 1973). These resources are directly linked to how knowledge is transferred and shared within networks and have been identified within the literature as shared language, shared narratives (Nahapiet & Ghoshal, 1998), and shared vision (Chiu & Hsu, 2008).

### *Shared language*

It is obvious that language is an important facet of social relations. Language at its epicentre has a direct and important function within social relations (Nahapiet & Ghoshal, 1998), for it is the primary means by which individuals communicate and exchange ideas. Language influences our perception (Berger & Luckmann, 1966) and provides a method to explicitly and implicitly convey meaning. It enables parties to tell stories, give instructions, ask questions and provides clarity for those involved in bi-directional or multiple-directional communication. However, shared-language goes beyond mere language as it addresses the acronyms, subtleties and underlying meanings that become a part of the day to day interactions (Lesser, 2000) for certain groups, networks and individuals. Shared language, in essence, supports a common and shared method of expressive communication which enables parties to connect, identify and access information that may be bound within the network and closed to others outside the social structure. Moreover, shared language provides a common conceptual apparatus for evaluating the likely benefits of exchange and combination, and is essential to learning in virtual communities (Chiu & Hsu, 2008).

### *Shared Vision*

Shared vision embodies the collective goals and aspirations of the members of an organisation, group or collective and acts as a bonding mechanism that encourages different segments of the network to integrate or combine resources in the hope of achieving positive outcomes for those contained within the collective (Tsai & Ghoshal, 1998). In the case of virtual communities, it is common for online aggregations to be orientated around a shared interest, common goal or practice (Chiu & Hsu, 2008) and it is these shared goals and values, which also binds actors together and increases the likelihood of actors actively sharing and exchanging resources in their various forms.

### *Shared Narratives*

Shared narratives relate to myths, stories and the use of metaphors (Nahapiet & Ghoshal, 1998). Research has indicated that myths, stories, and metaphors provide a powerful means by which the creation, exchange, and preservation of rich sets of meanings take place in some communities (Clark, 1972; Nisbet, 1969). As such, shared narratives akin to storytelling potentially allow actors within certain networks to use language in a manner that is abstract. Narratives offer increased

comprehension, interest, and engagement. This is especially true within non-expert audiences (Dhalstrom, 2014) and thus, is essential for the transfer of tacit knowledge. That is, knowledge that is difficult to write down or verbalise (Levin & Cross, 2004).

In summation, the existing research demonstrates the complexity of social capital, illustrating how each component that constitutes social capital functions. Each dimension contains its own fundamental intricacies, displaying how network structure and the configuration of relational ties affects the types of resources that particular networks make possible (Granovetter, 1973; Granovetter, 1982; Krackhardt, 1992; Burt, 1992; Putnam, 1995; Hansen, 1998; Paxton, 1999). Furthermore, the research illustrates the social conditions and features needed to foster trusting relations and the cognitive resources which provide group specific representations, interpretations and systems of meaning (Cicourel, 1973). However, what is not clear in relation to the literature is how social capital either virtual or in real-space, is formed. Thus, further research is required to reveal how each dimension links together as a singular mechanism to form social capital.

### 2.3 Social capital an interdisciplinary concept

A considerable amount of literature has been published regarding social capital firmly establishing its relevance as an interdisciplinary concept across differing fields of research. For example, the conceptual study conducted by Pretty & Ward (2001), which examined social capital in relation to the environment, posed credible argument in support of the role social capital plays in natural capital improvements. The study recognised that network structure, trust and social relations facilitate cooperation in rural areas, serving as a necessary prerequisite to the improvement of collective action with reference to resource management, sustainable farming practices and land care.

Previous research within the context of sporting activity has also explored how social bonds between people engaged in sport-related activity create social capital. For instance, the study conducted by Ottesen, Jeppesen, & Krustrup (2010), which utilised a quantitative research design found that both groups of female participants under study had an initial basis for bonding internally, due to their shared stories and status as inactive, untrained women. Both groups continued to develop their respective stories throughout the study enabling access to new networks and changing their status within their current network, highlighting the significance of shared stories, experiences and group solidarity in establishing, building and sustaining strong

valuable social-bonds. Comparatively, the classical research study undertaken by Nahapiet & Ghoshal (1998), within the context of organisational advantage also finds strong argument for the positive ramifications of social capital, firmly linking it to the development of intellectual capital which is referred to as the knowledge and knowing capability of a social collective, such as an organisation, intellectual community, or professional practice. Within this study Nahapiet & Ghoshal (1998) infer that through combination and exchange, members within a collective develop new intellectual-capital, as a result of the dynamic social interaction which takes place. This process of exchange co-creates joint value at the individual level, but more importantly, at the organisational level by reducing transaction costs between members and organisational units by economising on information and coordination costs. Therefore, resources are more efficiently mobilised, indicating that intellectual capital formation is fundamentally reliant on social relations and the structure of these relations. Collectively, these studies outline the critical role social capital plays in relation to the social world. They demonstrate how social capital theory considers the importance of the collective in relation to an individual's own goals, recognising that people garner more benefit and resource availability when they work together in view of shared interests and common goals. Furthermore, the above-mentioned literature also eludes to the notion that value is co-created within networks through peer-to-peer interaction and that each particular type of value is dependent on the type of network and the types of exchange and interaction that occur. Thus, different networks serve different purposes, generating specific yet valuable collective outcomes for members, illustrating the interdisciplinary and value-laden nature of social capital.

## 2.4 Value Co-creation

Value co-creation has strong foundations within the service and marketing literature (Vargo & Lusch, 2004; Vargo, Maglio, & Akaka, 2008; Payne, Storbacka, & Frow, 2008; Prahalad & Ramaswamy, 2004). From a service logic perspective, co-creation attributes importance to the value-creating processes that involve the customer as a co-creator of value (Vargo & Lusch, 2006). Co-creation in this context, shifts away from the notion that value creation occurs solely within the firm through its internal activities and activities within the marketplace (Prahalad & Ramaswamy, 2004). Rather, value co-creation within a market context is the realisation that interaction between the firm and the consumer has become the locus of value creation and extraction (Prahalad & Ramaswamy, 2004), signalling that the involvement of customers to co-create value is an important strategy for businesses competing to satisfy personalised demands

and to gain competitive advantages (Zhang & Chen, 2008). In this manner, customers have become a vital component in the value co-creation process, customers have the ability to interact not only with firms but with one another, constructing value as customer benefit through the integration of resources via firm-to-customer and customer-to-customer interaction (Grönroos & Voima, 2013). Giving modern consumers the ability to have input into such activities as product development, the crafting of market messages and production processes (Prahalad & Ramaswamy, 2004), effectively co-creating and securing value for all stakeholders. In recent years, value co-creation has also been applied to other areas of research. For example, research within the context of soccer, fandom has found that multiple platforms for value co-creation exist in both physical and virtual space. Soccer fans within the study conducted by Uhrich, (2014) were found to interact on multiple platforms, exchanging and sharing unique information within virtual online soccer communities, at soccer games and associated events, intensifying friendships and rivalries, sharing experiences with other fans and competing in contests with other groups. The practices observed in this study demonstrate how peer-to-peer activity creates value, on the basis that when peers who hold resources interact, those resources become integrated and combined co-creating new types of value amongst peers.

#### 2.4.1 Value co-creation and social capital

Value co-creation is inextricably linked to social capital theory. Co-creation in the context of social capital refers to the joint creation of value between peers through interaction (Mathwick, Wiertz, & Ruyter, 2008; Loane & D'Allessandro, 2013). It enables peers to co-construct experiences and experience environments through dialogue (Phung, Gupta, Nguyen, & Venkatesh, 2013) that result in collective resource availability and positive potential outcomes for network members. To illustrate this point, the research carried out by Loane & D'Allessandro, (2013) within online peer support communities determined that co-creation is a fundamental outcome of social capital formation. That is, sociability and peer-to-peer interaction produce the necessary conditions needed to support social capital through trusting relationships which build upon acts of goodwill and facilitate the value co-creation process. Accordingly, Loane & D'Allessandro, (2013) argue that as peer-to-peer interaction takes place within virtual networks, social goods such as information and social support specific to that particular type of community are exchanged. As information is shared and social support is provided, social capital is continually built through trusting relationships and goodwill contained within the community. Moreover, the presence of



social capital within the community facilitates further acts of goodwill in the form of generalised exchanges of information and support (Adler & Kwon, 2002), resulting in the creation of value for community members such as better informed service encounters, treatment guidance, enhanced quality of life and improved self-management (Loane & D'Allessandro, 2013). Subsequently, the creation and maintenance of social capital hinge on the activity that takes place between peers and is effectively co-created. Therefore, without peer-to-peer activity trusting relationships and goodwill cannot be developed to a level where social capital can be established and value can flow freely through the network.

Based on the aforementioned research, the relationship between social capital and value co-creation is undeniable, grounded in logic and made possible by our need to be social and communicative beings. However, as technology has progressed over time, so too have the ways in which people now communicate, interact and socialise. As such, the rapid integration of the online world within modern society has undoubtedly shifted the manner in which networks are now established, connected and mobilised. Online platforms of communications such as Facebook and a plethora of interest based virtual communities now exist, and their power and influence are unquestionable. It is, therefore, apparent that a heightened level of scrutiny should be placed on understanding the effect of the online world in relation to social capital and value co-creation in varied contexts as the types of value, functions and outcomes attributed to these two concepts will potentially extend the overall understanding of these theories. Thus, further investigation of social capital within the virtual context that explores different network configurations and types is warranted. Research with these objectives as a focus may discover new types of potential value, resources and subsequent processes related to social capital and value co-creation that have remained hidden.

## 2.5 Virtual social capital

With the proliferation of the internet, people today are connected more than ever before. Virtual communities, social networking sites and other computer-mediated communication have become a part of our daily lives. As such, the online world has fast become a site for social activity both original and extended from the offline world (Williams, 2006). Computer-mediated interaction, communication and activity via the internet has become inherently social, providing an excellent medium for the support of far-flung, intermittent, networked communities which bridge together

people, organisations and knowledge (Wellman, 2001). More importantly, the ease at which relationships are now formed, maintained and accessed has enabled the common computer user access to an abundant supply of potential connections and network opportunities which exist outside the physical context. Thus, computer-mediated communication has become a key instrument in modern life, playing an integral role for many individuals and placing new emphasis on the social-science based disciplines to further develop and extend existing theoretical concepts and ideas (Wellman, 2001). One such theoretical concept that garners further attention, is that of social capital and its transcendence into the realm of the online or virtual world. As with traditional offline social capital, virtual social capital also encapsulates properties of social life (Putnam, 1993), based on trust, norms of reciprocity and identification (Chiu & Hsu, 2008). Likewise, virtual social capital is collective in nature, resource driven and derived and from networks of relationships possessed by an individual (Nahapiet & Ghoshal, 1998), in much the same way as offline social capital. However, the value, resources and social goods attributed to virtual social capital are potentially different from that of the offline world due to the group-specific nature and types of peer-to-peer activity that take place within the virtual world.

#### 2.5.1 Virtual social capital research

Over the last fifteen years, research regarding social capital in the virtual context has hotly debated whether the Internet increases, decreases or supplements social capital. A fundamental argument advocating the Internet's negative effect on social capital, suggests the Internet diverts people away from true community because online social interactions and relationships are inferior to face-to-face interactions (Putnam, 2000). However, this narrow perspective of online social interactions fails to appreciate the socially supportive communication that takes place within online communities, nor does it recognise the needs, interests or motivations of those individuals involved in such networks. For example, the research conducted by Magsamen-Conrad, Billotte-Verhoff, & Greene (2014), which examined the normally negative effect of communication technology addiction in individuals prone to self-concealment, found that many individuals are not comfortable with face-to-face communication. Rather, the presence of computer-mediated channels of communication provides these particular individuals with the ability to communicate and foster beneficial inter-personal relationships which improved their mental well-being, highlighting the significance that the virtual world plays in the lives of a proportion of highly-connected individuals who suffer from social anxiety and other potential afflictions. Several other

studies within the context of mental well-being have also demonstrated the existence and importance of virtual social capital, noting its positive effect on mood (Phung, Gupta, Nguyen, & Venkatesh, 2013), self-esteem and life satisfaction (Johnston, Tanner, Lalla, & Kawalski, 2013). This indicates the extent to which virtual based social interactions affect individuals positively in a tangible and measurable manner. Therefore, the evidence suggests the Internet neither increases, decreases nor supplements social capital but acts as a connective platform for the creation of new types of social capital extended from the offline world and independent in its own right.

Traditionally, academic research has subscribed to the notion that virtual communities exist as online social networks in which people with common interests, goals or practices interact to share information, knowledge and socialise (Chiu & Hsu, 2008). Research to date, has been able to effectively demonstrate the link between social capital factors and the different types of knowledge sharing, acquisition and transfer that occur within virtual communities. For example, it was demonstrated within research concerning P3 communities (which, are online networks of practice designed to facilitate knowledge sharing and learning), that these particular networks bridge individual's together working on similar problems (Mathwick, Wiertz, & Ruyter, 2008). The weak relational ties that exist within the community enable access via interaction to new and novel sources of information (Granovetter, 1973), building collective expertise whilst forging meaningful social relationships which are maintained by the normative influences found within the community. Voluntarism, reciprocation, and social trust impose a moral responsibility to volunteer, reciprocate and to act in a trustworthy manner, establishing value and creating a competitive advantage by which actors within the network achieve their goals (Mathwick, Wiertz, & Ruyter, 2008), and satisfy the collective interests of the network. Furthermore, research has also demonstrated that knowledge-sharing in reference to the quantity and quality of knowledge shared is positively affected when the related outcome is presumed to be for the benefit of the community. For example, the research undertaken by Chiu & Hsu (2008), found that community-related outcome expectations play an important role underlying knowledge-sharing in terms of both quantity and quality, whereas personal outcome expectations have a negative yet insignificant effect on the quantity of knowledge sharing. These results are potentially attributed to the notion that some community members are more concerned with the successful functioning, survival and growth of their respective virtual communities than the benefits that it will produce for themselves, revealing

the level of identification and investment that community members have with their respective networks. Furthermore, the results of the study also reveal that social capital factors (e.g. social interaction ties, trust, norms of reciprocity, identification, shared language, and shared vision) lead to a greater level of knowledge sharing in terms of quantity but not quality. Hence, the evidence clearly demonstrates that relationships are paramount to the acquisition of information and thus knowledge (Burt, 1992), however, the quality of information is somewhat dependent on the type of network, the ties that exist within the network and the interaction and activity that occurs within the network.

In recent years, there has also been increasing interest in the context of health and well-being in relation to social capital, computer-mediated communication and virtual community-based research. As such, research within this context has consistently demonstrated the valuable informational and emotional support garnered through online social exchange and sociability. For example, peer-to-peer activity has been shown to bridge people together, enabling knowledge sharing and creating strong social bonds between network members (Coulson, 2005; Mo & Coulson, 2008; Laone & D'Allessandro, 2013). Research within this context has also inferred that informational and emotional support are vital and a sought-after source of value for peer support network members. For instance, the research undertaken by Coulson, Buchanan, & Aubeeluck, (2007), indicated that informational and emotional support were most frequently offered, concluding that the exchange of informational and emotional support represents a key function within online peer-support groups. Further lines, of research have also suggested a positive relationship exists between supportive interactions and positive affect after the interaction. For example, the research conducted by Oh, Ozkaya, & LaRose (2014), found that the positive effect felt by social-networking-site users after online social networking was positively associated with perceived companionship support, appraisal support, and life satisfaction. In addition outcomes associated with supportive communication and interaction within online peer support networks include increased capacity for symptom interpretation, illness management and interaction with healthcare professionals (Coulson, 2005).

Markedly, it is evident that the types of social support co-created within health orientated virtual communities constitute a valuable resource for its members. The support offered fosters strong interpersonal relationships which empower members and builds group solidarity (Portes, 1998). The trusting relations contained in peer support networks support both benevolence and

competence-based trust (Levin & Cross, 2004) enabling cooperation and supporting norms of reciprocation which in turn enable resources and value to become liberated (Pretty & Ward, 2001). Therefore social support is noticeably valuable on the surface, however, it is plausible to suggest that within social support lay additional types of value that are also important.

In general, the overall existing research indicates that value and resources take differing forms. Value is seemingly present within interaction and is an outcome of the interactions. Thus, the value garnered is not solely confined to outcomes such as improved knowledge (Mathwick, Wiertz, & Ruyter, 2008) and better-improved quality of life (Loane & D'Allessandro, 2013), rather, it is inherently present within the interactions and sociability that occurs. Furthermore, the value that is established is jointly created by its members through peer-to-peer interaction which contributes to the overall supply of virtual social capital within networks and, therefore, is necessary for the survival or loosely-tied virtual networks. With this in mind, a substantial amount of research has been conducted within the social capital line of research and although much is seemingly known regarding the composition of social capital, fundamental questions remain concerning its formation in the virtual context and the value that is associated with the phenomena. Therefore, the position of this research asserts that other varieties of co-created value and resources exist within virtual communities. Consequently, it is suggested that further research is conducted that seeks to explore the full spectrum of virtual communities in order better generalise findings across different studies and to provide a greater understanding of the complexities of virtual-based social theories from differing perspectives.

## 2.6 About this research

### 2.6.1 Study context

The context of this research is focused on how loosely-knit individuals within an online peer support network orientated around drug and alcohol addiction form virtual social capital and create peer-to-peer value, identifying the differing types of value in their various forms and explaining their value. The study will utilise publicly available data from the Daily-Strength, friends and families of addict's online support group (DailyStrength, 2016). It is hoped that by exploring communities such as this, a fresh perspective can be attained which better explains how virtual social capital is formed within cyber-space and reveal types of value that have either remained concealed or misunderstood.

### 2.6.2 Research objectives and scope of the study

The primary objective of the following research study is to explore how weak-tie, peer-to-peer social interactions contained within a computer-mediated peer-support network forms virtual social capital. In order to achieve this, the following research aims to explore the weak-tie peer-to-peer activity that occurs within the Daily-Strength, friends and families of addict's online support group. This network is utilised by addicts and the family and friends of addicts. Thus provides multiple perspectives regarding drug and alcohol addiction. The secondary objective of this research is to account for and reveal the different types of value and resources co-created, and distributed within the virtual network. This component of the research will also utilise the publicly available sources of data available from the Daily-Strength support group otherwise known as the DS community.

### 2.7 Chapter summary

This chapter provided a review of relevant literature that has aided in the identification of suitable areas for further investigation, combining theory from multiple research areas including, consumer behaviour, behavioural science and social theories in differing contexts. In the next chapter, the research methodology used in this research study is discussed.

## Chapter 3: Methodology

The purpose of the following chapter is to outline the methodological processes utilised within the following research study. This chapter will first discuss the qualitative orientation of the research design providing justification for its use. Secondly, the rationale for the use of Netnography as a viable and warranted data collection method in conjunction with the utilisation of the NVivo QSR 10 software package as an analytical tool will be discussed. Furthermore, the application of content analysis as the primary means of data analysis within this research will be explained. Lastly, the overall research design and subsequent procedures will be described in detail. This will include how and where the data was collected from, the sampling procedures used and the coding protocols initiated within the study.

### 3.1 Qualitative research design

The primary objective of this research is to explore how weak-tie, peer-to-peer social interactions that occur within a computer-mediated peer support network forms virtual social capital. The secondary objective of the research is to reveal the different types of value and resources that are co-created, and distributed within the virtual network by way of the social interactions that take place. In doing, so the research aims to firstly address how virtual social capital is formed within the DS community. Secondly, to identify the different types of value and resources co-created, and distributed within the network.

The research approach chosen for this study is qualitative in nature. The basis of which is the adequacy and relative fit that qualitative research methods enable in terms of the proposed research objectives. Furthermore, a qualitative research design allows the researcher flexibility in analysis, and on a literary level that casts off the restrictions imposed by formal academically structured writing (Creswell, 2007). As such, a deeper and richer analysis can be undertaken that aims to understand the contexts or settings in which the studied phenomenon occurs. As a result, a qualitative research study that assumes reality is socially constructed is an appropriate approach to data analysis because it focuses on what is felt (*emic responses*) by individuals in a particular setting. Therefore, a more holistic picture can be built by the researcher based on the analytical interpretations of the data collected (Creswell, 2007).

### 3.2 Netnography - QSR NVivo 10 Software Package

Netnography was chosen as the most relevant and suitable data collection technique in relation to the objectives and purpose of this research. Netnography is achieved through ethnographic techniques applied to the Internet (Kozinets, 2002). Traditional ethnography is a qualitative approach where the researcher describes and interprets the shared and learned patterns of behaviour, beliefs and language of a culture-sharing group (Harris, 1968). The researcher achieves this through extended observations of a group through participant observation where the researcher immerses themselves in the day to day lives of the people he or she observes and interviews (*field work*). The outcome of field work produces a detailed analysis of the identified patterns or topics that signify how the cultural group lives and operates (Wolcott, 1999). Comparatively, a netnographic approach utilises publicly available information found on the internet to identify and understand the needs, decisions and influences of relevant online consumer groups (Kozinets, 2002). Thus, Netnographic researchers are required to connect with the community, live online with its members, engaging and connecting with the individuals within the group (Bryman & Bell, 2011; Kozinets, 2002, 2010). The publicly available information utilised for the purposes of the following research were the textual interactions that took place within the Daily Strength virtual network via various active-member discussions that occurred over the course of the data collection period.

According to Creswell (2007) ethnographic research focuses on an entire cultural group. Therefore, in relation to the netnographic study carried out within this research, the cultural group or unit of analysis under study is a virtual online community. More precisely, the Daily Strength online peer support group. However, it should be stated that in the particular case of this study, the researcher participation was deployed from a passive standpoint. That is, the researcher remained concealed throughout the study to ensure that the peer-to-peer social interactions that took place within the community were carried out in a natural and unobtrusive manner.

Netnography as a data collection technique poses many advantages. Netnography is less time consuming, flexible and less elaborate than market-orientated ethnography and, therefore, requires minimal resources. Furthermore, netnography is capable of being facilitated utilising observations of participants in a context that is not contrived, thus is more naturalistic and unobtrusive than focus group or interviews (Kozinets, 2002). More importantly the open-ended



nature of netnography reveals interesting participant insights, impressions, linguistic conventions, motivations, and information on the symbolism and meanings (Kozinets, 2002) contained within online social groups, showcasing the ways of life that are meaningful to group members and providing a thick description of the life worlds of these consumers (Langer & Beckman, 2005). Based on this, the utilisation of netnography as a data collection method was justified and warranted for the purpose and objectives of this research.

As stated previously, the NVivo OSR 10 Software package was employed as a data collection and data analysis tool. The software package was utilised to establish links and insights into the collected data by assisting the researcher with the organisation and analysis of non-numerical, textual data. In this way, the data can be efficiently classified, sorted and arranged in a manner that enables relationships, links and other effective outcomes to be realised (QSR International, 2016).

### 3.3 Content analysis

Content analysis is a general term used for a number of different strategies employed to analyse textual data (Powers & Knapp, 2006). The purpose of content analysis is to describe the characteristics of a textual data set by examining who says what, to whom, and with what effect (Bloor & Wood, 2006). By doing so, the researcher can adequately describe a phenomenon because content analysis uses a systematic approach toward the coding, categorising and exploration of large amounts of textual information unobtrusively, to determine trends and patterns of words used, their frequency, their relationships, and the structures and discourses of communication (Pope, Ziebland, & Mays, 2006).

A conventional approach to content analysis was utilised within the following research study. A mix of both inductive and deductive approaches was applied to the textual analysis of the data in order to facilitate the research objectives. An inductive approach signifies that the identified themes, patterns and trends are strongly linked to the data (Patton, 1990). In comparison, a deductive approach to content analysis would tend to be driven by the researcher's theoretical or analytic interest in the subject area, and is, therefore, more explicitly analyst-driven (Braun & Clarke, 2006). Consequently, the process of coding and categorisation of the data was both theory-driven, whereby the researcher uses preconceived categories, fitting the data into the researcher's analytic preconceptions and data-driven. A data-driven approach or open-coding

approach allows the codes and names for categories to develop gradually from the data itself (Braun & Clarke, 2006) which in turn allows new insights to emerge (Kondracki & Wellman, 2002). Subsequently, a mix of open coding and preconceived coding was employed in relation to the objectives of the research.

### 3.4 About the websites (Data)

The data utilised for the specific purpose and objectives of this research was collected from a publicly available source. As such, the data was collected from, the Daily-Strength online support group, <http://www.dailystrength.org/c/Families-and-Friends-Of-Addicts/forum>.

The Daily-Strength social platform was created by a team of Internet veterans with more than 20 years of experience conceiving, building, and directing the largest communities on the web, including Yahoo Mail, Yahoo Photos, Yahoo Personals, Yahoo Groups, GeoCities, Facebook, My Yahoo, Yahoo Message Boards and more. The Daily-Strength or DS community is a comprehensive online support network for people to connect with one another. The website hosts a number of different support networks in relation to various interests, these include ADHD, Depression, Cancer and Addiction to name a few. In total, there are over 500 different support networks featured on the Daily-Strength platform, encouraging users to make friends, track and set goals, collaborate and share content. The site also features active discussion boards, hosting expert advice treatment reviews and other resources (DailyStrength, 2016).

The Daily Strength online support network was selected as a viable data source due to the size of its membership with over 400,000 members spread across 500 different support groups, in conjunction with its high web-traffic and well-established history as valued health-orientated social networking platform (DailyStrength, 2016). As such, the particular online support group chosen for data collection and analysis was the “Families and friends of addict’s support group.” This online network was chosen due to the supportive nature of the network, multiple perspectives of the membership and the rich textural data contained within the discussion threads.

### 3.5 Procedure

#### 3.5.1 Sampling

The sampling method employed in this research is purposive sampling. Due to the nature of the research objectives, purposive sampling was chosen as it focuses on the selection of information

rich, textural examples whose examination will illuminate the questions under study (Patton, 2002). By its very nature purposeful sampling or (judgement sampling as it is otherwise known) is ideal for the proposed research design, as the primary objective from which all other will be addressed is to explore and examine the weak-tie social interactions and peer-to-peer activity that occur. Based on this, purposive sampling is appropriate as it focuses on observations that will answer the research questions under investigation by giving the researcher the ability and freedom to specifically target information-rich cases for analysis.

### 3.5.2 Data collection

The data collection process took place over seven weeks from April 27<sup>th</sup>, 2015 until June 8<sup>th</sup>, 2015. In this time, the researcher visited the DS community on a daily basis engaging from a passive yet immersive orientation. The data chosen for collection was based on the level of activity contained within each discussion. Namely, those discussion threads which contained the most posts were selected. It was deemed that those threads of discussions that elicited greater member participation would potentially yield the most suitable data. In total, 23 discussion threads were selected for analysis which were visited on a daily basis to continually collect data over the seven-week data-collection period. Furthermore, any discussion thread that did not contain at least five posts or responses was not included in the data collection. Of those 23 discussion threads selected, 28 posts was the highest number of posts within a given discussion thread and 6 was the lowest. However, it should also be noted that the length of each post varied greatly with a number of posts containing lengthy dialogue.

The following table displays all selected discussion topics, their subsequent titles, the author of each discussion and the number of posts per discussion thread.

**Table 2:** Data - discussion threads

Discussion Title	Author	Number of posts
<i>It's all falling apart . . . again</i>	MomOfAStranger	28
<i>Daughters first time to detox what should I expect</i>	Lainca	11
<i>Wants bail money - what do I do? Please help.</i>	Cab6	28
<i>TRAMADOL - Do you know anything about it?</i>	MomOfAStranger	15
<i>Why Addicts Will Always Choose Drugs Over Love</i>	LippyLaurs1	7
<i>How to handle the family budget?</i>	Prettymama	11
<i>Inpatient Treatment Finally</i>	earlyrose	11
<i>I'm getting tired of this...</i>	gordos4	7
<i>Just had to call police to remove brother</i>	Leighla101	11
<i>Nightmare</i>	brok3nh3art	14
<i>Need Help</i>	TammieLassonde	10
<i>I feel selfish</i>	brokenmom	9
<i>Roll Call</i>	blueviolet	28
<i>Please, would you pray for my son?</i>	cottontail	12
<i>Hello all</i>	mallen21345	8
<i>I'm Back</i>	jms7299	6
<i>Son that threatens suicide - please help?</i>	cottontail	11
<i>What's after jail?</i>	cantdoitaloneanymore	11
<i>Please read this</i>	Pen125	10
<i>My story. I'm not perfect</i>	Misssy2	7
<i>Thoughts on this?</i>	blueviolet	9
<i>Dealing with trust</i>	CeeCee4	7
<i>New Here</i>	needingencouraged	7

In total, 278 total posts were collected for the analysis of the 23 discussion threads. The data was then digitally transcribed for the analysis stage of the study.

### 3.5.3 Data analysis

In order to systematically analyse the data, the first initial step before coding was to read the transcripts in full to familiarise oneself with the data. This enables immersion to take place where the researcher can obtain the sense of the whole (Tesch, 1990), in terms of what is going on (Morse & Field, 1995), who is saying what and in what context they are said (Elo & Kyngas, 2008). Consequently, a hard copy of the digital transcript was produced for this purpose. During this process, notes and memos were produced to assist the overall analysis.

#### 3.5.4 Manual coding

The coding process was manually initiated using the hard copy of the transcripts. According to Myers (2010), coding involves assigning a label to a portion of textual data and classifying that portion of data into a certain category. Coding assigns an explicit code to the information found in the dataset, which may describe, organise or interpret aspects of the phenomenon under study (Boyatzis, 1998). With this in mind, the transcripts were open coded in full with subsequent stages following the manual coding process which will be outlined in the next section.

#### 3.5.5 QSR NVivo 10

At the completion of the initial manual coding stage 1, all codes were reviewed and necessary changes were made. These changes included the reduction or collapsing of codes that were deemed similar into more meaningful codes. From here, the digital transcripts were then exported to the NVivo QSR 10 software package for further analysis.

The use of the NVivo QSR 10 software package enabled the efficient analysis and compilation of data. The software aided in the review, organisation and coding of the data, assisting the researcher to establish broader-higher order categories, enabling links, relationships (Elo & Kyngas, 2008) and themes to be developed.

In total, 37 codes were initially developed. However, due to the similarity of some codes in terms of description and nature, this number was reduced to a final number of 24 codes. Exemplars for each code can be found in the appendices. Furthermore, 1,929 coding-instances were deployed within the final stage of open coding, resulting in the development of key categories and themes which aided in the abstraction process and ultimately the objectives of this research.

#### 3.6 Chapter summary

Chapter 3 has supplied the reader with a detailed overview of the research methods utilised for the purposes of this research. In the next section, the findings of the content analysis are discussed in relation to the research question and objectives set out in this study.

## Chapter 4: Findings and Discussion

This chapter discusses the findings of this research in relation to the research question and objectives. The chapter is set out in the following order. Firstly, the manner in which weak-tie, peer-to-peer social interactions within a computer-mediated online peer support group forms virtual social capital will be discussed. From this point, the discussion will shift its focus to address the different types of value co-created and distributed within the virtual network.

### 4.1 Peer-to-peer activity: The foundation of Virtual social capital

The foundation of virtual social capital is dependent on, built from and reinforced by the social interaction and peer-to-peer activity that takes place in virtual cyberspace. From its beginnings the Internet has been effectively utilised by consumers as a means to reach out and find others who share similar interests, and online virtual communities have evolved out of this interest (Rheingold, 1993). More precisely, the internet has become a fundamental platform or virtual meeting place where like-minded individuals congregate, forming networks of collective interest, from which members communicate, exchange and actively share. These social interactions ultimately result in the formation of peer-to-peer value that has been jointly created or co-created amongst peers contained within a virtual network.

With regard to the research question and the way in which virtual social capital is formed, substantial research has suggested that three distinct yet related dimensions exist (Nahapiet & Ghoshal, 1998) when considering virtual social capital. Within each of these dimensions reside the necessary mechanisms that assist in the formation of virtual social capital. Therefore, this study takes into consideration certain aspects of the existing research in order to extend overall knowledge and relative thinking surrounding how virtual social capital is formed within online virtual networks and communities.

### 4.2 Structural ties and the composition of the network

In order to address how weak-tie, online social activity forms virtual social capital, it is important to understand the composition and structural make-up of the network itself and the members who form its ranks. As with any social system, there are particular traits, characteristics and situational circumstances that member's share, which influences why individuals choose to join certain networks and not others.

A preliminary analysis of the data was carried out immediately after the coding process which determined the approximate size of the network. The data revealed that the network is primarily composed of 60 active members, however, this does not include passive members who participate in an audience-only capacity. Demographic variables such as gender and other descriptive features such as the member's relationship to the afflicted addict were all systematically tabulated where possible. As such, the data revealed some interesting similarities and points for discussion in relation to the Daily-Strength peer support group. For instance, members were encouraged to take part in an activity called the "Roll Call" which is primarily a network bonding exercise, urging new and existing members to actively participate in the network and re-establishing group-orientated norms. (See table 3)

**Table 3:** Examples of the "Roll call"

<p><i>Roll Call - We used to do this....</i></p> <p><i>'I am *****, my addict is my son. He is a now sober (6 years) alcoholic. He is 30. I am a mom of 2, wife of 32 years. My piece of advice? - realize it isn't happening to you. My question? - Are he and his sister going to ever be friends?'</i></p> <p><i>"Now you go...short...just to help us better relate."</i></p>
<p><i>"I am ***, my husband is an addict (pills). He has been clean for 6 weeks now. We have been married for ten years, two kids. My piece of advice - Be present and enjoy the little moments. My question? - When will I start to feel that my life is coming together again? "</i></p>
<p><i>"I am *****...I am a recovering alcoholic. I lived in an abusive relationship for 22 years. I have 2 sons...one addicted to drugs and one with Intermittent Explosive Disorder. I currently live with someone with an addiction problem. My piece of advice - Try to enjoy each day to the fullest. You never know when it will be your last. My question? - Will I ever be able to follow my own advice? "</i></p>
<p><i>"I'm *** married mom of 3 my oldest only son 21 is my addict in recovery. 1 year 5 months clean from heroin so YES it can be done! I have been here on this site for 3 1/2 years' wonderful place. My advice is ALWAYS let your addict know how much you love them but never enable their using. My question Will we ever find a cure for this tragic condition?"</i></p>
<p><i>"I am *****. Married 34 years; have two sons and one daughter. My middle who is 23 is a drug addict. My piece of advice: get connected with others who are in the same boat so you can vent ask for advice and encourage them as well. My question: how will I ever heal and what will the new norm for me and my family be?"</i></p>

Analysis of the “Roll Call” data revealed that 47% (*28 active members*) of the total identified active network membership (*60 members*) took part in this activity.

- 78% of those who responded were female, 4% were male and 18% did not specify their gender.
- Interestingly, 76% of the members were parents, mostly mothers of an addict or recovered addict. Furthermore, 7% were siblings, 7% were spouses of an addict or recovered addict, and the remaining 10% of respondents were recovered addicts themselves.
- Surprisingly, 64% of the membership that took part in this activity did so despite that fact that the associated addict that first motivated them to seek support was either in recovery or had been sober for a considerable length of time, ranging from 6 weeks to 6 years clean and sober. This observation strongly reflects the group identification and sense of belonging that active participants within the network hold, illustrating that the social relationships and subsequent social bonds formed within the network are not easily discarded. Rather, members appear to value the established social bonds and the ongoing collective interests, vision and longevity of the network. Furthermore, it infers that members who have been supported in the past, reciprocate this action by helping others in need, which is a critical aspect of virtual social capital.
- The remaining 36% of members who responded to the “Roll Call” did so in relation to a currently addicted family member or for their own recovery and support.

Based on the abovementioned observations, we are able to ascertain that a large majority of members who frequent the network do so in relation to a family member, are predominately female and are the parents of an addict. Although they do not know each other well, they have all been adversely affected by addiction both directly and indirectly, sharing characteristics and situational parallels which seem to act as an attractive force bringing individuals together in light of a common purpose. This ability of the network to attract similarly affected individuals from disparate regions of the virtual social system intensifies internal bonding and mitigates potential communication barriers within the network. As such, participants in the “Roll call” displayed a willingness to share brief yet intimate personal details, advice and their reflective thoughts regarding addiction. Based on these findings, it is presumable that goodwill and solidarity are markedly present within the network as members express a benevolent and helpful attitude



toward one another. From a theoretical perspective this positivity, goodwill and solidarity potentially occur through a mechanism labelled bounded solidarity. It is held that bounded solidarity occurs when members of a particular group find themselves affected by common events and situations (Portes & Sensenbrenner, 1993), which lead to the emergence of principled group orientated behaviour. In this sense, bounded solidarity cultivates group identification, trust, goodwill and norms of reciprocity, lubricating co-operation and reducing transaction costs between members (Pretty & Ward, 2001). This ability to cultivate and foster cooperation is reflected by the ease at which members share such personal information with people that they do not know that well.

Overall, the preliminary analysis indicates that members seek out and join the network in light of a shared common interest. However, it is the experienced solidarity, identification, trust and supportive nature of the social environment which encourages members to stay online and ultimately interact with sparsely-knit individuals that they are not strongly tied to nor know that well.

#### 4.3 Trusting, non-judgemental social relationships

Building upon the previous section, trusting, supportive and non-judgemental relationships are the key driving force behind the formation of social capital within the Daily-Strength or DS community. It was observed that in much of the peer-to-peer interaction, the nature of the dialogue is emotionally charged, reflecting the emotional mind state of participating member's in relation to the difficult life situations they face. This type of interaction is beneficial to the network as it affords members the opportunity to vent and express themselves in an environment that is non-judgemental with others who understand their situations and the emotional journey they potentially find themselves on. For example, the following peer-to-peer activity reflects a members experienced distress and the subsequent non-judgemental support provided:

*"How do I do this again? I am so tired of hurting so, so deeply...so tired of grieving every time things fall apart...grieving over and over and over. Two children, two addicts. I can't do this anymore."*

*"We have all been there and know the deep hurt and grief that you are feeling. It is like a death but it is ongoing. Be strong. Don't enable. Detach from the addict with love and let go and let God in. Take care of yourself. If you can, do something for you! Prayers and a hug"*

*“Thank you for your words of encouragement. Thanks to all of you. We are in a very painful place right now. Our addict swears he is not using again. Maybe he isn't, but the fact remains that his old patterns of laziness and using people haven't changed.”*

Accordingly, the peer support provided to members by way of the network is emotionally supportive, taking into consideration the vulnerability of members and providing them with emotional support and advice that is relevant to the situation. This cooperation between members cultivates a strong sense of belonging and identification within the network. Those members openly seeking support through interaction have the ability to attain it, alongside other varieties of embedded value within the interaction, such as strengthened social bonds, perceived group solidarity and group-specific friendships that may be unattainable offline due to high transaction costs (Pretty & Ward, 2001). Furthermore, those members who reciprocate support also garner benefit through the shared experiences of others, potentially facilitating a degree of personal reflection in terms of how members think of themselves, how they relate to others and how they deal with their own issues (Schwart & Sendor, 1999). In essence, the value formed by this activity occurs as a result of the exchange that takes place between participants, as information is exchanged, resources are integrated, effectively co-creating a valuable experience for contributing members.

Another interesting facet regarding the trusting social interactions that facilitate the formation of virtual social capital within the DS community is the problem-solving nature of the network itself. It would seem that a key function of the network is to find solutions to problems faced by its membership, through the exchange of supportive information and directive. As a result, a large proportion of the discussion threads were initiated specifically in relation to an adverse problem. The following excerpts are samples of the typical discussion threads found within the DS community.

*“Daughters first time to detox what should I expect.”*

*“Wants bail money - what do I do? Please help.”*

*“Just had to call police to remove brother.”*

*“What's after jail?”*

*“Son that threatens suicide - please help?”*

*“It's all falling apart . . . again”*

With regard to the problem-solving nature of the network, it is evident that the issues faced by members are complex, compounded by the fact that they involve people that members are

strongly tied to. It was observed on numerous occasions that members often had an idea of what action to take, however, were uncertain if their intended course of action was moral and right. This indecision was likely the result of the strong parental and family bonds that members share with the addict in question. It appears that due to the strong emotional attachment that parents and family members feel for their associated addicts, their logic, intuition and subsequent moral judgement is clouded. This inability to step back and view the situation without interference puts members in a precarious position. Feelings of frustration, guilt and affection for the addict take an emotional toll on members and mitigate their ability to make good decisions. For example, one member contemplates whether it is appropriate to bail out their 35-year-old son from jail in relation to a robbery attempt:

*"Wants bail money - what do I do? Please help. Today got called - he's in jail for robbing a bank. No weapon or anything. Wants us to bail him out & his face is in the paper. Says he'll keep his job if we bail him out. I want to do it! But what good will it do? He'll just get out and use & his job has to be a lost cause anyway, right? Please help me?"*

*"I'm afraid at this time that if I bail him out, he will be back to using in minutes. Sure he's withdrawing right now in jail. He's not stupid, would have to have been using to rob a bank! Maybe at 22 I would have, I've done a lot to enable him in the past. This is his third arrest in a year and a half."*

In response to the abovementioned member's plea for advice, the subsequent collective network responses reflect sympathy for the member's situation, yet provide direct and to-the-point advice. The feedback received is descriptive, detailing how responding members would approach the situation or related to a similar situation that members are dealing with, or dealt with in the past. This ability of the network to call upon past and present experience is a crucial and valued asset. It enables the integration of informational resources based on experiential accounts and personal reflection to become combined in a cohesive way that facilitates the creation of new intellectual capital, enhancing the knowledge and knowing capacity of the network (Nahapiet & Ghoshal, 1998). As a consequence, group members are benefitted by the ability to make better-informed decisions. As illustrated by the following member replies in relation to the previous plea for advice:

*"Putting myself in your shoes, if it was my son, I would NOT bail him out. I would NOT put any money in his 'jail account', I wouldn't even visit him for at least a month. I may write a letter to him. I wouldn't accept any collect calls. In my thoughts, robbing a bank is showing total desperation. I would be afraid if I bailed him out, he would be a danger to not only myself but to someone innocent in all of it. He is escalating and he needs to get severe help."*

*"I know it's a difficult choice to make, but your son is an adult. It will NOT help him in any way for you to bail him out of jail - again. You have done everything possible in the past. Bailing him out of jail tells him that you will always be there to fix his mistakes. It's time for him to stand on his own two legs and take responsibility for his actions. His best chance of recovery is remaining in jail. Our addict-son went to jail last summer and it was the wake-up call he needed to get clean."*

It is also worthwhile to draw attention to the consensus that members achieve by conferring with each other directly and indirectly. This type of activity where members confer with one another to achieve collective consensus in relation to an adverse situational issue was common, seemingly enhancing the trustworthiness of the advice provided. This collective approach to offering informational support appeared to strengthen the resolve of members to make better-informed decisions and to some degree, alleviated the emotional stress that such difficult situations place on members. Moreover, social pressure to act morally in accordance with the collective vision of the network, may also play a role in the decision-making process, ultimately guiding the support seeker back to a rational state of mind and allowing them to see a better course of action, as evidenced by the following posts between a member offering support and the initial support seeker:

*"I agree with Hoping and Blue ... at 35, it is time that he faces and deals with the consequences of his actions. As heart wrenching as it can be, you need to put some distance between you and the situation. You need to take care of yourself first. You said you bailed him out for the last time, stick to your words or they won't mean anything. Good luck and prayers to you and your family."*

*"Thank you all for your posts. It helps me to believe that I'm possibly doing the right thing by not bailing him out."*

*"I still have the moments and sadness and doubt that it could have been different. But after reading this it reminds me that I did the right thing and helps strengthen my resolve."*

From a theoretical perspective, the trusting social activity confined within the network infers that both benevolence based trust and competence-based trust exist within functional peer support networks. However, in relation to the DS community, these two forms of trust are seemingly intertwined. Meaning that members within the network do not necessarily view each other as experts within the field of addiction, rather they value the lived collective experiences of members and hold the belief that members sharing, do so with good intentions. This type of social trust results in the acceptance, acknowledgement and diffusion of key information and support within

the network. Meaning that without trust, access to the diverse sets of information and opportunities associated with weak ties would be redundant as members could potentially perceive the network as an untrustworthy source of information, ultimately leading to the dissolution of the network, displacing its membership and resulting in a deficit of social capital.

With regard to the positive social outcomes associated with the trusting social relations found within the DS community, one important feature that has yet to be mentioned is the historical proofs or assets that are co-created as a result of interaction. These historical assets or proofs are the informational exchanges that become stored within the community that members can be directed to or access on their own accord in order reflect and learn. This capacity to store online informational resources and supporting interaction is significant, as it facilitates the continual and gradual deposit of intellectual and social capital into what can be described as a collective social fund. This collective social fund is important in two ways. Firstly it is evidence to all members that the collective aspirations of the network as a supportive and valued social community are legitimate and of value to its membership. Secondly, it is an important learning resource for new members, effectively demonstrating the normative sets of behaviours that exist in the network, ensuring that new members act accordingly, reciprocate support and add value to the collective. For example, participants posted the following messages:

*"Welcome to our group. Glad that you found us and sorry that you had to. I hope by reading some older posts, you can see that we have all shared some of your issues...in one way or another. Loving an addict is tough. If loving them and praying for them was enough, none of us would be here."*

*"I absolutely feel the same way. You can read some of my Co-dependent posts if you want to feel better. You are not alone. "Specifically, read "I failed miserably"...lots of arguments on that thread. Discussions....advice...etc."*

*"Wow, this life as a parent of a child addict is the hardest I have ever come across or had to live. I am reading all the opinions and I am so tormented with my own child's life and decisions I can't offer you one but I will pray for all. Just reading all the support in here is overwhelming, scary and helpful. Good luck."*

Overall, the capacity of the DS community to form social capital is heavily influenced by trusting social relations and activity. Trusting relations result in collective cooperation which liberates informational and supportive resources. These resources express the collective experiences held by the network which become historical assets that enhance the knowing capability of the group and provide new members with a template for the conduct of social affairs within the network. Therefore, the assets, resources and value made available are a result of social activity in an

environment that is non-judgemental and socially supportive. The valuable information exchanged is collectively formed through a consensus approach that is appropriated by members to achieve positive social outcomes such as better informed decision making, enhanced well-being, trusting group specific friendships and improved coping with emotional stress.

#### 4.4 The role of communication, narratives and shared beliefs

Perhaps one of the more understated aspects regarding the formation of virtual social capital, is the significant role and relevance that shared representations, interpretations and systems of meaning play amongst group members (Cicourel, 1973). It was found that the sharing and exchange of personal narratives based on lived experiences, laden with emotion and authenticity, showcases the dramatic nature of the situations faced by members as illustrated by the following small extract from a member's full-length post:

*"It's 3:40 in the morning. Crying and sick to my stomach because of guilt over having to call the police to have my drunk alcoholic younger (36) brother removed from my home. I know his actions caused it. Still doesn't seem to stop the tears. I would give anything for him to find sobriety and some peace. It is so hard to see him go through the full range of emotion of rage, then self-hatred, then rage, and then you glimpse his helplessness of this disease and it breaks your heart. Then that is quickly replaced with fear and disgust of the things that come out of his mouth."*

This staging of emotion as depicted above is driven by the urge for impression management (Goffman, 1959), utilising narrative methods to tell a story. The stories crafted are built upon connected events which seem to reach members on a shared emotional level, effectively constructing an emotional performance (Zurcher, 1982) that uses common and expressive language to influence the nature of the subsequent interaction. Fittingly, narratives of experience contain key elements of well-crafted storytelling. For instance, they exhibit adversity, struggle, hope and other human characteristics that are bundled up into a cohesive script, based on factual events that demonstrate the inherent drama that member's experience from which peers identify, sympathise and relate to. The result of such activity is the elicitation of identification, solidarity and most important reflective learning amongst participating members. For example, two members openly reflect, posting the following responses:

*"Momofastranger: Amen....your answer to cab6 is even reaching me. .... As long as you are there to bail your son out of trouble, you are interfering with God's ultimate plan and preventing your son from a personal encounter with Him. .... Is really thought provoking."*

*"Dear Cab6: I just joined this group and haven't shared any information with anyone yet but I want to respond to your plea for help because I just came to realise something. The drug takes precedence in their life over everything else. They can't help it, they even forsake their pets and leave them without food or water and never give it another thought. Their drug comes first. I was an enabler for my son too until I just couldn't afford it anymore."*

Another dynamic feature of the network with regard to the use of expressive communicative techniques is the practice of keeping the network continually updated in relation to a currently faced issue. For example, it was observed that group members participating in particular discussion threads would do so over the course of days, weeks and in some cases months. Interestingly, those members seeking support would often update the network in relation to the outcomes of the advice provided, offering an up-to-date account of what has happened, how they felt and what they did. The following excerpts are brief extracts of the much larger posts made by one member over a 6-week period:

*"Things have settled down a bit with our addict. We gave him a move-out date of April 19th. After communicating with his girlfriend so we are all on the same page"*

*"I have a great deal of suspicion and mistrust. From the time he was 18 until age 28, he was an addict and therefore also a user, manipulator, etc."*

*"The deadline we set - April 19th - came and went. Although our addict son has been extra helpful around the house, still no job & no arrangements to find another place to live."*

*"We told him yesterday during the screaming match to pack his things & go."*

*"It's been 10 days since the "falling out" and our son leaving. Although I hate the way he ended up leaving, I'm very glad he's gone. I'm so grateful to have the house to ourselves once again and grateful that a lot of stress left with our son. My husband and I have finally been able to get back to enjoying our time together."*

In relation to the above activity, the opportunity for members to produce continual updates is met by continual responses from the network. This type of interaction is notable as it infers that members interacting are truly invested in each other, possessing strong social bonds and a sense of kinship. From a theoretical perspective, the role of group-specific language and communication within peer support networks is substantial. For example, language is held to be an important facet of social relations (Nahapiet & Ghoshal, 1998), because it is the primary means by which members connect, identify and access information. This is especially true within the DS community, due to the fact that the communication and interactions that take place are text-based, meaning that the effective utilisation of words as an expressive form of communication is crucial

to encoding messages in an intended way. Text-based communications run the risk of being insufficiently encoded and thus decoded (Hall, 2001), therefore, are in danger of being misinterpreted, understated or perceived as being less meaningful. Therefore, without the cognitive resources that characterise the shared representations, interpretations and systems of meaning specific to that particular network, trust, goodwill and collective cooperation could not be realised. Therefore, it is plausible to suggest that the crafting and use of expressive communications is a necessary and vital component in the formation of virtual social capital.

#### 4.4.1 Shared beliefs

Shared systems of belief from a spiritual and religious perspective presents an area neglected by the contemporary literature regarding social capital. What is surprising about this is the influential role that spirituality and religious beliefs play in the lives of individuals and groups who share similar belief systems (Lease, Horne, & Noffsinger-Frazier, 2005). For example, an emergent theme observed within the data was the consistent use of religious speak and reference to spirituality and religious values. For example, one member posts a religious orientated response to a group member who had recently asked for advice:

*"I know from personal experience that the toughest thing we as parents must do is COMPLETELY turn our prodigal child/children over to God's care...this means letting go of them, refusing to "help" {enable} them financially, legally, etc., and allowing God to work in their lives in His own way and in His own time."*

Throughout the peer-to-peer interaction, religious overtones are subtly weaved through a proportion of the interaction. It appears that the integration of religious ideology acts as a bonding mechanism, bringing those who share common religious beliefs closer together and providing an additional source of support. On frequent occasion, religious orientated support is sought and offered. For example, one member asks for the network to pray for her son who has been recently informed that he will be jailed if he goes near his partner and his children due to his addiction problems. As a consequence, one member replies:

*"I will pray for your strength to endure because this is a very painful process and I will also pray that God puts a hedge of protection around your son and mine so that they can't get their drugs and have to face the reality of what their life has become. Whether you believe in God or not I believe that there is more strength in prayer than in anything else in this world and combined prayer only magnifies our plea. May God hear our prayers and respond quickly...Amen."*

With regard to the value attributed to such activity, it appears that spirituality and the belief in a higher-power also fortify the resolve of many members in the face of adversity giving guidance,



hope and optimism to those members who subscribe to such beliefs. Therefore, from a theoretical standpoint, belief systems and spirituality propose an interesting area for further investigation, as this additional source of support and value may transcend across similar peer support networks. With regard to its relevance to virtual social capital, belief-orientated support acts as a cognitive resource providing a group-specific system of meaning that group members can interpret and derive added value from.

#### 4.5 Conclusions regarding the formation of Virtual social capital in the DS community

The process by which virtual social capital is formed within the DS community is based on the collective experiences held within the network and is subject to the active participation of its membership. Interaction facilitated by trusting relations and goodwill must take place between peers so that the integration of individually held resources can be achieved within-activity, liberating and making available collectively constructed resources and assets. Shared narratives, language and systems of belief enhance the network's ability to communicate on a group-specific level, reinforcing social bonds and trust in the network. More importantly, they affect the nature of peer-to-peer interactions and the subsequent value that is co-created. To illustrate the formation of virtual social capital the following theoretical framework depicts the process by which virtual social capital is formed within the DS community.

**Figure 1:** Formation of virtual social capital in the DS community.

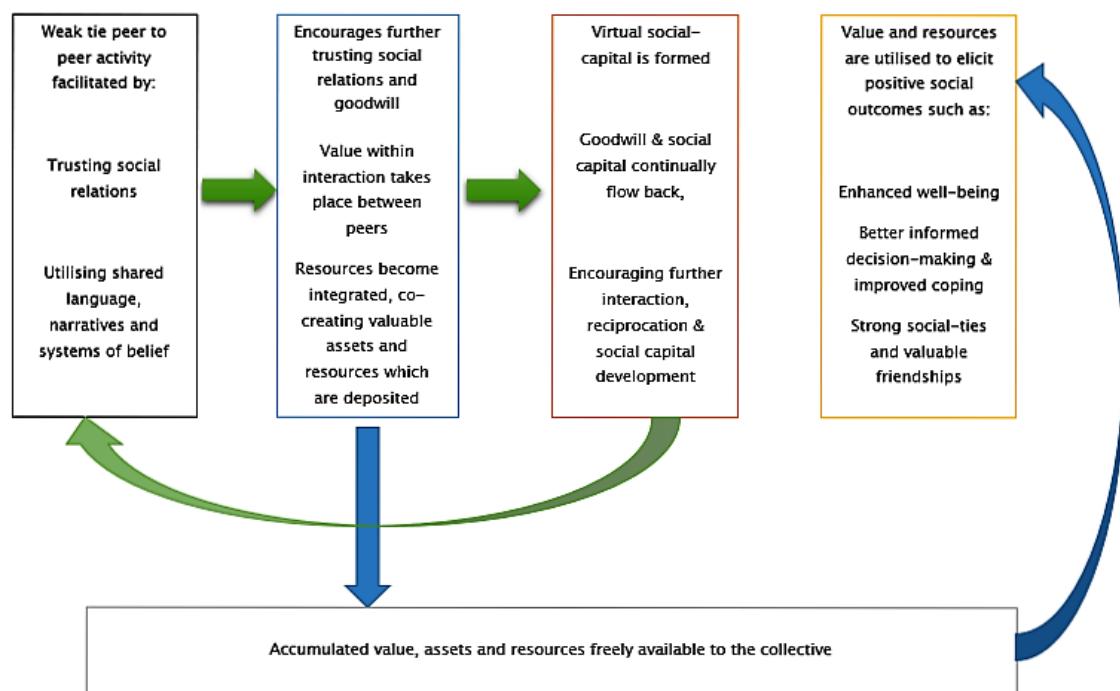


Figure 1 illustrates the formation of virtual social capital. As peer-to-peer activity is initiated, trusting social relations encourage cooperation through the effective use of language, narratives of experience and shared systems of belief. These cognitive resources enhance the network's ability to communicate, resulting in the efficient integration of individually held assets and resources, combining them in such a way that the sum of these parts results in the formation of higher valued assets which are deposited in the network. As a consequence, virtual social capital is formed, as social activity continues, goodwill and social capital flow back to the network, encouraging further interaction. This enables virtual social capital to be continually developed via acts of generalised reciprocity, resulting in the accumulation of value, assets and resources that can be easily distributed amongst members of the network and utilised to affect positive social outcomes such as improved well-being, better-informed decision making, and enhanced coping strategies.

#### 4.6 The value and resources co-created and distributed within the virtual network.

Value is a subjective construct that can be determined by the usefulness, importance and worth that an individual or a group places on something (Dictionaries, 2016). With this in mind, the secondary objective of this research was to reveal the different types of value that are co-created and distributed within the DS virtual community. Given that the network by its very nature is peer-support driven, much of the value co-created and derived is linked to the group-specific nature of the social environment and the types of social support found within the virtual network. Based on this, the following sections of this research will discuss the types of value identified within the DS community and although some of the value has been discussed in the previous section, a more detailed and in-depth exploration will be conducted in order to reveal the subsets of value that are associated with the types of support, assets and resources distributed in the DS community.

##### 4.6.1 Narratives of experience and the staging of emotion

Informational support based on the advice, opinions and narrative experiences of members was found to be a principal resource obtained through network activity. Members frequently seek informational support through sociability, as peer-to-peer activity takes place and information is freely exchanged, the collective knowledge capability of the network is enhanced. This increase in intellectual capital is appropriated by member's network of the affect positive social outcomes, such as better informed decision making, enhanced well-being and improved coping strategies.

However, within this process, alternate sources of underlying value emerge which are potentially just as important as those more easily discernible sources of value.

Information is key to learning and is a fundamental source of value within virtual communities, (Levin & Cross, 2004; Mathwick, Wiertz, & Ruyter, 2008). However, the manner in which information and knowledge are transferred, exchanged and shared also provides, usefulness, importance and worth to those who seek and provide informational support and resources. For example, the descriptive use of language, narrative storytelling and the staging of emotion were found to be key cognitive resources that assisted the formation of virtual social capital. Narratives of experience were observed to foster enhanced solidarity, trust and identification amongst network members, eliciting meaningful interaction and supporting social bonding, and although these outcomes are of value they do not encompass the full scope of value that narrative free-expression provides.

According to the existing research, narratives of experience are held to be increasingly necessary for individuals to piece the discrete fragments of experience together through an individual coherent story that says something about the people within the experience (Richards & Wilson, 2006). This capacity to make sense of things is an important source of value as it allows individuals to better understand the social world by making connections between their experiences and the systems of abstract symbolism we use to describe our world (Ankor, 2012). Accompanying narratives of experience is the staging of emotion through textual expression. The utilisation of narrative expression as the principal means to demonstrate felt emotion provides a virtual staging area for the enactment of human behaviours (Zurcher, 1982), giving context to lived experiences from the viewpoint of those actors within the experience and identifying the nature of the situation. As such, participants that utilise such descriptive communicative techniques within peer-to-peer social activity are seemingly better equipped to connect with one another. For example, the following extract from a member's lengthy narrative displays the trust issues she is experiencing in relation to her husband who is a recovering alcoholic:

*"He will lie if he drank after work with his co-workers. He will drink and lie about it from time to time. It is slowly killing me. It hurts me every time. Trust is taken and shit on, excuse my language. But that is the truth. Addicts are selfish. They either choose to ignore the hurt they cause their loved ones, or they just don't see it. The damage they causing is like a wrecking ball being driven through the living room. They disrupt everyone's lives around them, and all for selfish reasons. I can't take it. I hate it. It makes me angry. I want to hit him, run from him, scream, yell, lose my cool, and just go crazy. I feel like I am going to go crazy."*

The enhanced ability of participating members to connect with one another through narratives of experience is valuable as it affords members the opportunity to present themselves and their actions in such a way as to fashion desired impressions before an audience (Goffman, 1959). Subsequently, narratives of experience that showcase emotion are an efficient way of shaping the emotional experience, affecting the responses of participating members who are invested in the well-being of each other and the collective respectively. The value attainable within this particular process is multi-faceted. Firstly, it enables responding members to better support the needs of those members seeking support. If members can better identify the needs of others they can provide support in the best way they see fit. Thus, the assets and resources they hold are efficiently integrated to better serve the individual and collective needs of the network. To illustrate this, the following post is a response to a member whose alcoholic husband has been lying about his drinking.

*"For your happiness...and his healing.... you need to leave him. Mostly for you. I am an alcoholic...I will not stop for anyone. And if he's drinking...I think it has to do with you.... or them...or somebody. You can't cure it...you didn't cause it. But you can save yourself. You will just keep torturing yourself if you stay. End it now...it will be the best decision ever."*

An additional type of value attainable through the use of narratives of experience is cathartic value. The use of narratives which utilise staged emotion seemingly provides psychological relief through the open expression of strong emotions; causing catharsis. This type of cathartic value is available to all members who participate actively in the exchange of informational support and resources, giving participants the open opportunity to vent pent-up emotions through textual free expression which helps purge hostile feelings and other emotions from the psyche (Bushman, Phillips, & Baumeister, 2001). It was observed that members of the DS community have a lot to say, a large proportion of the posts from both those seeking support and those offering support are quite extensive. Based on this, narratives of experience appear to facilitate the purging of frustration and other emotionally distressing feelings. For example, one member expresses gratitude after an extensive amount of venting had been carried out:

*"No I'm not in a recovery program so to speak...but I am in therapy weekly. I keep falling back to the booze...which is what I mean when I say I'm not perfect. Thank you all for your kind words, support and prayers...I had to vent that night...and I always have the same problems over and over...don't usually expect a response...just want to vent."*

*"Thanks again."*

As reflected in this section, there is significant value in the use of expressive narration. The use of language and communication as a tool to realise benefits is a key feature of the DS community. It is evident that members of the network over time, have become proficient in the way they present themselves and the actions they take. In this sense, the value that is garnered through this type of interaction is co-created. This occurs as a consequence of interaction because the communication that occurs is multi-directional. Meaning that without an audience to connect with, there is no staging area for self-expression to take place, members seeking support cannot attain it. Therefore, the presence of an audience is a key factor, and although members who interact may not always expect responses to all their posts, they possess an inherent need to be heard.

#### 4.6.2 Altruistic value

There is a small but growing research base that suggests that helping others may be beneficial for the helper (Schwart & Sendor, 1999). For example, a nationwide survey of 3,617 elderly people reported that giving informal assistance to others was associated with enhanced feelings of personal control and lower levels of depressive symptomatology (Krause, Herzog, & Baker, 1992). Another survey of 1,700 women, reported that volunteers who helped others experienced greater calmness, enhanced self-worth, reduced depression and more pleasurable physical sensations (Luks, 1988). Furthermore, research on peer-support among abused women suggested that the providers of support viewed their ability to give support as evidence of their own recovery (Henderson, 1995). With this in mind, altruism which can be defined as the selfless concern for the well-being of others, is an important factor when considering the value co-created within virtual peer-support networks. The “perfect symmetry” of altruism as described by Savishinsky (1992), states, that the perfect symmetry of altruism allows “one to offer one’s time which is a gift that can never be reclaimed, in exchange for other people’s gratitude, which is a reward that can rarely be bought” (Savishinsky, 1992, p. 1325). This statement infers that although helping others represent a cost, the subsequent value attached to helping others is of greater importance than the incurred costs. With regard to the DS community, the altruistic nature of the community is observable. The basis of this claim resides in the fact that a proportion of active members have continued membership within the network to selflessly support fellow members. This is evidenced by the following posts by several members:

*"I'm \*\*\* married mom of 3 my oldest only son 21 is my addict in recovery. 1 year 5 months clean from heroin so YES it can be done! I have been here on this site for 3 1/2 years' wonderful place."*

*"I am \*\*\*, married 31 years, mom of 27-year-old twins, my son is a recovering addict (3 1/2 years sober)."*

*"I'm \*\*\*\*\*, married 31 years with 2 kids. My son is almost 23 and a recovering opiate addict. He's been off heroin 2 years."*

*"I am \*\*\*\*\*. Married almost 26 years. My addict was my son. He is fully recovered by God's grace. Will be 3 years clean from drugs."*

As can be seen from the above posts, these particular members stayed active in the community even though their afflicted addict has long been recovered. This reflects strongly a sense of belonging, internal bonding, solidarity and a selfless concern for others. This desire to help others is potentially associated to support that may have received in the past. Inferring that members who have received substantial support feel obligated to reciprocate such substantive support back to the collective. Furthermore, the support they provide others may serve as a stark reminder of how far they have come, further motivating them to assist where possible. Together, these results provide important insights into how socially supportive virtual communities generate resources through the notion that helping others is valuable. Based on the types of support found within virtual networks, altruistic value seems to hold an influential position as to why people invest so much time, effort and energy into the well-being of people they may have never met. This may also explain why many members within peer-support networks continue to offer support to others when their individual need for support has diminished.

#### 4.6.3 Emotional support and value

Emotional and esteem support emerged as an important source of value for members of the collective, and although it was not the primary variety of peer-support exchanged, its role within the network is crucial for the ongoing health and longevity of the collective. The observable value attributed to emotional and esteem support is bonding in nature, bringing network members closer together and signalling that the collective dilemmas of all members are shared, supported and recognised. The resulting value is linked to identification, solidarity and the realisation that members are not alone. In essence, the network provides a unified front. Through this kind of support, members obtain a sense of belonging, unity and group-specific identity which is jointly created by members as they interact and provide both emotional and esteem support to one

another, collectively. The following excerpts are typical examples of emotional and esteem support:

*"I am so sorry you are going through this again. We understand your pain. I will pray for you and for the confrontation. Please take care of yourself and let God take care of him xoxo"*

*"I know this was probably one of the hardest things you have ever had to do. That being said I think you should be proud of yourself for keeping your boundaries and following through with the consequences."*

In relation to the above activity emotional and esteem, support emerges as an efficient and effective method of ensuring that social bonds remain intact. The additional value attributed this type of social activity lies in the importance that individuals place on network membership and their role in ensuring its success and longevity. As such, members garner value when providing emotional and esteem support as it serves as a reminder that they are contributing members to a network that they perceive as socially valuable and meaningful.

#### 4.6.4 Religious support and belief

Faith in god, spirituality and religion play a central role in the lives of many people (Lease, Horne, & Noffsinger-Frazier, 2005). Similarly, religious support and belief were emergent themes strewn throughout much of the dialogue and interaction. Much of the religious support observed was subtle in nature, however, a considerable amount of the support offered was orientated around religious ideology and outward commitment to the power of faith. For example, the following post reflects some of the held religious ideals of the network:

*"As long as you are there to bail your son out of trouble, you are interfering with God's ultimate plan and preventing your son from a personal encounter with Him. We made the mistake of "helping" our son for over 10 years. Only when we stopped enabling him by coming to his rescue was God able to rescue him for the long term."*

Research within religious faith and spirituality has linked spirituality and religion to physical and mental health (Miller & Thoresen, 2003). This growing body of research has demonstrated a generally positive relationship between spirituality, religion, and mental health factors (Larson & Milano, 1997; Ventis, 1995), not to mention psychological well-being (Levin, Markides, & Ray, 1996), reduction in depressive symptomatology (Ellison, 1995), and instillation of hope during stress (Ross, 1990). Accordingly, the value that is present resides in the strength, positivity and guidance that religious rhetoric and support offers to members. Religion, spirituality and faith are

seemingly powerful motivators that empower members who subscribe to such religious values, guiding their actions, influencing their psychological mind-state positively and ensuring they manage their affairs regarding addiction in a manner that does not contradict their commitment to their faith or systems of belief.

#### 4.7 Concluding statements

Based on the findings of this research, it emerged that multiple sources of value exist within virtual networks. These sources produce value that is seemingly group-specific in nature. Meaning that different networks potentially produce slightly different forms of similar support and subsequent value. Network configuration, social trust, cognitive resources and interaction determine the types of value and resources created, however, the basis by which value is formed stems from shared human behavioural characteristics. We all trust, feel emotion and express ourselves in similar ways, therefore, although different networks are better suited than others at supplying differing levels of support, resources and value, the mechanisms by which this occurs are generalizable. As such, virtual networks that wish to flourish must develop key social practices that allow the efficient integration of resources between group members. Trusting social relations are vital to this process as trust facilitates cooperation and a sense of goodwill and belonging, making possible the realisation of value and social capital. The ability of networks to achieve these benefits ultimately comes down to the people within the community and their willingness to connect and interact. Therefore, those networks that possess willing and able members can naturally develop these key social practices over time in order to produce positive social outcomes and a way forward in relation to individual and collective social dilemmas.

#### 4.8 Chapter summary

Chapter 4 was a detailed discussion of the key findings of this research which focused attention towards how weak-tie social interactions within virtual communities create virtual social capital. This exploration also discussed the various types of value that are co-created within virtual networks, extending the theoretical body of knowledge and providing new insight regarding the virtual social world. In the next chapter, the implications of the research will be discussed, alongside the limitations of the research study and areas for future research.



## Chapter 5: Conclusion and Implications

This chapter discusses the implications of the research study in relation to the findings outlined in the previous chapter. The chapter is set out in the following, firstly, a brief summary of the findings will be presented. From this point, the managerial implications from a public policy and practice context will be submitted. The theoretical implications of the research will be discussed, followed by the limitations of the research and areas for future research.

### 5.1 Summary of findings

Peer-to-peer interaction facilitated by trusting relations and goodwill were observed to be significant features in the efficient development of social capital and valuable resources. Trust facilitates cooperation, motivating participating members to combine their individually held resources with others in a benevolent manner. Shared narratives, language and systems of belief were found to enhance the process by which virtual social capital and value are formed. This is because cognitive resources enhance the network's ability to connect and communicate on a meaningful group-specific level, intensifying trust, social bonds, group identification and group solidarity. More importantly, cognitive resources were observed to affect the nature of peer-to-peer interactions and the subsequent value that is co-created. Resulting in the efficient integration of individually held assets and resources, combining them in such a way that the sum of all parts results in the formation of higher valued assets which are deposited in the network.

In terms of the value co-created and distributed within the network, narratives of experience were observed to shape the emotional experiences of members affecting their responses and enabling the providers of support the necessary context and background to produce better quality support. Catharsis was also linked to the use of narrative expression whereby members garnered benefit from the purging of hostile emotions and feelings improving their mental wellbeing. Altruistic value, emotional supportive value and religious, spiritual value were all observable key types of value found within the DS community, confirming that dissimilar networks produce slightly different forms of support and value through comparable processes of exchange.

## 5.2 Policy and practice implications

### 5.2.1 Virtual peer-support and social capital

The findings of this research have significant implications for public policy makers and public health programmes. In relation to the findings outlined in this study, it is apparent that the integration of computer-mediated communication and peer-to-peer support found within virtual networks presents an effective, low-cost, stakeholder-driven method toward self-help in dealing with the complex issues that surround harm-related consumption and addiction. The research findings indicate that those collective dilemmas faced by addicts and those closest to them are best dealt with by a community approach. In the sense that better social outcomes are realised when people work together collectively. Importantly, virtual support networks offer a platform for this to take place. The benefits of which may allow those affected by harm-related consumption the opportunity to come together in a virtual environment where they have access to non-redundant informational resources and other types of peer driven support. More importantly, it gives individuals affected by addiction and other harm-related consumption behaviours a forum to express themselves, reflect and learn from one another, in a safe environment free from judgement, with supportive peers from whom they can connect with at the group and individual level. This access has been demonstrated to produce therapeutic benefits such as catharsis and altruistic value not to mention the improved mental well-being, coping and better-informed decision making that is garnered through peer-to-peer social interaction.

Accordingly, virtual networks enable those most affected by addiction the opportunity to connect in a supportive group environment, where members can build trusting relationships, set norms, obligations and develop cognitive resources. Over time, these resources, norms and features specific to that network will build value, assets, and social capital, which will not depreciate, nor be lost. As stocks increase and the network grows, more value can be built and better social outcomes become possible. As such, the emphasis of dealing with addiction and recovery becomes more inclusive of and placed on those most affected. Thus, people in need of help can effectively help themselves and others through the community approach. Subsequently, the strategic implementation of a virtual support component within state-run, private and not-for-profit programs that focus on smoking cessation, alcohol and drug addiction and other forms of harm-

related consumption may be a way forward in reducing the impact that these conditions impose on their victims and the wider general public.

#### 5.2.2 The role of family and friends in addiction recovery

The role of family support in addiction recovery has been long established. Research within this context has demonstrated that higher levels of general parental support are related to lower rates of substance abuse and drinking (Mason & Windle, 2001). Although further research has also suggested that while negative life events are correlated to the use of alcohol and drugs, parental support may also buffer and reduce this effect, inferring that family support is an influential and essential component to recovery in some addicts. With regard to the influence of significant others, it was also found that specific support for abstinence was found to be a strong predictor of continued abstinence (Havassy, Hall, & Wasserman, 1991), demonstrating the need for strongly-tied stakeholders to be part of the recovery and cessation process. Based on the importance that strongly-tied individuals play within recovery, it is also relevant that they are integrated within recovery programs and that their views, support and input is utilised to affect positive change. Thus, it may be beneficial for family members and close attachments to take part in virtual social environments in order to mitigate the potential impact that addiction can have on their well-being, as observed throughout this research. In doing so family members, close attachments and those suffering from addiction and other harm-related consumption can approach the issues faced from a unified position. In this way, all stakeholders have a more holistic viewpoint of the effect that harm-related consumption poses on them and each other. Furthermore, the individually held resources that each possess can be efficiently integrated to produce positive social outcomes of importance, worth and usefulness.

#### 5.3 Theoretical implications

The findings of this research provide new insights concerning virtual social capital, extending the research stream and integrating aspects from other research areas. Overall, the theoretical framework of virtual social capital developed from the findings contributes knowledge to the existing research by illustrating the significant role that cognitive resources play in the efficient co-creation of value and the development of virtual social capital. Although trust was also found to be a significant contributor to social capital formation, communication is the primary means by which trusting social relations can be developed in virtual support networks. Therefore, it seems

that the cognitive dimension of social capital has been understated within the contemporary literature, as much of the value identified is also linked to these types of resources which include narratives of experience, shared beliefs and language.

In relation to specific findings detailed in this research, a key finding of note is the extension of knowledge in relation to shared narratives and systems of meaning. This idea that narratives of experience enable enhanced cognitive and symbolic meaning to be encoded and decoded, producing different sets of value is a powerful insight. Narrative expression was found to be a key source of value, enabling members to stage emotional performances that co-creates value. It would seem that language and communication play a more central role across the dimensions of virtual social capital than first thought. As for without communication, relationships cannot be forged and connections cannot be sustained. Ultimately, the process by which peer-to-peer value and virtual social capital are generated become non-existent. Thus, the importance of the cognitive dimension in relation to virtual social capital formation seems to have been understated within the contemporary literature. As the way in which resources are co-created stems from interaction and cognitive processes which rely heavily on communicative techniques and practices. Based on this, virtual social capital in its conceptual form is less about the end resources produced but rather the actions that generate value and resources.

Another finding worth mentioning, was the impact that shared religious beliefs had on virtual social capital formation within the network and the value associated with shared belief systems. This insight may prove to be an area for further exploration as the scope of belief systems, ideology and cultural values may also play a larger role in how social capital is formed in differing networks. Religious faith or spirituality was found to be a source of value that shaped some of the peer-to-peer interaction and the subsequent support exchanged, which infers that belief systems have an observable effect on groups and virtual networks.

Overall, the findings outlined in this research lay a theoretical foundation for future research. For example, the utilisation of expressive communication and the impact of shared beliefs and culture in social capital development are areas for future research. Furthermore, the role and relevance that cognitive resources play in the formation of virtual social capital could be further examined to see if the findings of this research hold true in other similar and dissimilar virtual networks. It may be advisable to further explore the relationship between trust and information exchange to determine how trust is most efficiently developed through online text-based communication.

#### 5.4 Limitations of the study

A limitation of this study was that although addiction is a global issue, the use of differing regional-specific publicly available sources of data including data from New Zealand and other countries with large indigenous and ethnic populations may have produced more robust and generalizable findings. Thus, the findings in question could have been directly linked to these groups in a manner that represent these populations better.

Secondly, the passive orientation from which the data was collected did not allow for the researcher to validate the interpretations of the data and although the findings emerged gradually through robust analytical techniques, the value of cross-validation through active participation and feedback may have deepened the immersion required by ethnographic research techniques and, therefore, the overall trustworthiness of the research findings.

#### 5.5 Areas for further research

Although much is known regarding social capital and virtual social capital, its measurement is an area for future research. At this current stage, there does not seem to be a valid instrument that has been specifically developed to measure social capital. An instrument of this kind would be a worthy extension of the literary field and be potentially applicable to many other fields of research. The applications of such a measurement apparatus could reveal levels of social capital in networks and how well certain networks function in relation to others and their relative health as a functional, impacting networks. The implications of which could produce further insight in explaining observable phenomena. Additionally, a value scale could also be a component of the aforementioned research opportunity. A scale of this kind that measures the value of different support mechanisms and resources may also reveal new insights regarding peer-support and value co-creation.

A further area for future research is to apply a similar study such as the one carried out in differing cultural contexts. For example, the cultural values in differing communities and ethnic groups potentially produce different sets of cognitive resources. It may be interesting to examine the relationship between communication and held cultural values to see the impact that shared cultural values and belief systems play in social capital development. A study of this kind specifically aimed at Maori and Pacific communities would be useful and interesting as it could

integrate diverse cultural perspectives and contexts that may further develop understanding in relation to how social capital is formed and sustained across different cultures and societies.

## References

- Adler, P. S., & Kwon, S.-W. (2002). Social Capital: Prospects for a new concept. *Academy of Management Review*, 17-40.
- Ankor, J. (2012). The complexities of experience: A critical tourism response. *Journal of Hospitality and Tourism Management*, 19(4), 1-7.
- Berl Economics. (2009). *Costs of harmful alcohol and other drug use*. Wellington: Berl.
- Bloor, M., & Wood, F. (2006). *Key words in Qualitative methods: A vocabulary of research concepts*. London: Sage Publications.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 77-101.
- Burt, R. S. (1992). *Structural holes: The social structure of competition*. New York: Harvard University Press.
- Bushman, B. J., Phillips, C. M., & Baumeister, R. F. (2001). Do aggressive people improve their mood? Catharsis, beliefs, affect, regulation opportunity, and aggressive responding. *Journal of Personality and Social Psychology*, 81(1), 17-32.
- Chiu, C.-M., & Hsu, M.-H. W. (2008). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 1872-1888.
- Cicourel, A. V. (1973). *Cognitive sociology*. Harmondsworth: Penguin Books.
- Coulson, N. S. (2005). Receiving Social Support Online: An Analysis of a Computer-Mediated Support Group for Individuals Living with Irritable Bowel Syndrome. *Cyber Psychology and Behaviour*, 580-584.
- Creswell, J. W. (2007). *Qualitative Inquiry and Research Design: Choosing among the five approaches (2nd ed.)*. London: Sage Publications.
- DailyStrength. (2016, February 11). *DailyStrength*. Retrieved from DailyStrength.org: <http://www.dailystrength.org/>
- Dictionaries, O. (2016, February 29). *Oxford Dictionaries Language matters*. Retrieved from Oxford Dictionaries : <http://www.oxforddictionaries.com/definition/english/value>
- Ellison, G. G. (1995). Race, religious involvement and depressive symptomatology in a southeastern U.S. community. *Social Science and Medicine*, 40, 1561–1572.
- Elo, S., & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107-115.
- Foderaro, L. (1995, March 23). Seekers of self help: Finding it on-line. *New York Times*.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York : Doubleday.
- Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 1360-1380.
- Hall, S. (2001). Encoding/decoding. In M. G. Durham, & D. M. Kellner, *Media and cultural studies* (pp. 166-176). Malden MA: Blackwell Publishing.

- Hansen, M. T. (1998). Combining network centrality and related knowledge: Explaining effective knowledge sharing in multiunit firms. *Division of Research, Harvard Business School*, Boston.
- Harris, M. (1968). "Emics, etics, and the new ethnography. In M. Harris, *The Rise of Anthropological Theory: A History of Theories of Culture* (pp. 568-604). New York: Thomas Y. Crowell Company.
- Havassy, B. E., Hall, S. M., & Wasserman, D. A. (1991). Social Support and relapse: commonalities among alcoholics, opiate users and cigarette smokers. *Addictive Behaviours*, 16(5), 235-246.
- Henderson, A. (1995). Abused women and peer-provided social support: the nature and dynamics of reciprocity in a crisis setting. *Issues in Mental Health Nursing*, 16, 117-128.
- Hoyer, W. D., & MacInnis, D. J. (2008). Social influences on consumer behavior. In W. D. Hoyer, & D. J. MacInnis, *Consumer Behavior Fifth Edition* (pp. 386-412). Ohio: Cengage Learning.
- Jacobs, J. (1965). *The death and life of great American cities*. Harmondsworth, Middlesex: Penguin Bookd.
- Kondracki, N. L., & Wellman, N. S. (2002). Content analysis: Review of methods and their applications in nutrition education. *Journal of Nutrition Education and Behavior*, 34(1), 224-230.
- Kozinets, R. V. (2002). The Field Behind the Screen: Using Netnography For Marketing Research in Online Communities. *Journal of Marketing Research*, 61-72.
- Kozinets, R. V., & Kellogg, J. (1999). E-Tribalized Marketing?:The Strategic Implications of Virtual Communities of consumption. *European Management Journal*, 252-264.
- Krackhardt, D. (1992). The strength of strong ties: The importance of philos in organizations. In N. Nohria, & R. Eccles, *Networks and Organizations: Structures Form and Action* (pp. 216-239). Boston: Harvard Business School Press.
- Krause, N., Herzog, A. R., & Baker, E. (1992). Providing support to others and well-being in later life. *Journal of Gerontology: Psychological Sciences*, 47, 300-311.
- Langer, R., & Beckman, S. C. (2005). Sensitive research topics: Netnography revisited. *Qualitative Market Research*, 8(2), 189-203.
- Lease, S. H., Horne, S. G., & Noffsinger-Frazier, N. (2005). Affirming faith experiences and psychological health for caucasian lesbian, gay, and bisexual individuals. *Journal of Counseling Psychology*, 52(3), 378-388.
- Lesser, E. L. (2000). Leveraging social capital in organizations. In E. L. Lesser, *Knowledge and Social Capital: Foundations and applications* (pp. 836 - 840). Woburn, MA,: Routledge.
- Levin, D. Z., & Cross, R. (2004). The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge. *Management Science*, 1477-1490.
- Levin, J. S., Markides, K. S., & Ray, L. A. (1996). Religious attendance and psychological well-being in Mexican Americans: A panel analysis of three-generations data. *The Gerontologist*, 36, 454-463.
- Loane, S. S., & D'Allessandro, S. (2013). Peer-to-Peer Value Through Social Capital in an Online Motor Neuron Disease Community. *Journal of Nonprofit & Public Sector Makreting*, 164-185.
- Luks, A. (1988). Doing Good: Helper's High. *Psychology Today*(10), 39-40.



- Magsamen-Conrad, K., Billotte-Verhoff, C., & Greene, K. (2014). Technology addiction's contribution to mental well-being: The positive effect of online social capital. *Computers in Human Behavior*, 23-30.
- Mason, W. A., & Windle, M. (2001). Family, religious, school and peer influences on adolescent alcohol use: a longitudinal study. *Journal of Studies on Alcohol and Drugs*, 62(1), 44-53.
- Mathwick, C., Wiertz, C., & Ruyter, K. D. (2008). Social capital production in a virtual P3 community. *Journal of consumer research*, 832-849.
- Miller, W. M., & Thoresen, C. E. (2003). Spirituality, religion, and health: An emerging research field. *American Psychologist*, 58, 24-35.
- Ministry of Health. (2013, October 8). *Diabetes*. Retrieved from Ministry of Health: <http://www.health.govt.nz/your-health/conditions-and-treatments/diseases-and-illnesses/diabetes>
- Ministry of Health. (2015, September 24). *Health effects of smoking*. Retrieved from Ministry of Health: <http://www.health.govt.nz/your-health/healthy-living/addictions/smoking/health-effects-smoking>
- Morse, J. M., & Field, P. A. (1995). *Qualitative Research Methods for Health Professionals*. Thousands Oaks, CA: Sage Publications.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, Intellectual capital and the organisational advantage. *Academy of Management Review*, 242-266.
- New Zealand Ministry of Health. (2013). *Alcohol Use 2012/13 Health survey*. Wellington: New Zealand Ministry of Health.
- NZ drug Foundation. (2015, September 24). *Drug trends*. Retrieved from NZ Drug Foundation: <https://www.drugfoundation.org.nz/alcohol/drug-trends>
- Owston, R. (1998). *Making the Link: Teacher Professional Development on the Internet*. Portsmouth: Heinemann, A Division of Reed Elsevier, Inc.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. New York: Sage.
- Phoenix, M. O., & Coulson, N. S. (2008). Exploring the communication of social support within virtual communities: A content analysis of messages posted to an online HIV/AIDS support group. *Cyberpsychology & Behavior*, 11(3), 371-375.
- Phung, D., Gupta, S. K., Nguyen, T., & Venkatesh, S. (2013). Connectivity, online social capital, and mood: A bayesian nonparametric analysis. *IEEE Transactions on Multimedia*.
- Pope, C., Ziebland, S., & Mays, N. (2006). Analysing qualitative data. In C. Pope, S. Ziebland, & N. Mays, *Qualitative Research in Health Care 3rd edition* (pp. 63-81). Oxford: Oxford Blackwell Publishing.
- Portes, A., & Sensenbrenner, J. (1993). Embeddedness and Immigration: Notes on the Social Determinants of Economic Action. *The American Journal of Sociology*, 98(6), 1320-1350.
- Powers, B., & Knapp, T. (2006). *Dictionary of Nursing Theory and Research 3rd edition*. New York: Springer Publishing Company.
- Prahalad, C., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value generation. *Journal of Interactive Marketing*, 18(3), 5-14.
- Pretty, J., & Ward, H. (2001). Social Capital and the Environment. *World Development*, 209-227.

- Putnam, R. R. (1995). Bowling alone: Americas declining social capital. *Journal of Democracy*, 65-78.
- QSR International. (2016, February 11). NVivo. Retrieved from QSR International: <http://www.qsrinternational.com/product>
- Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Boston: MIT press.
- Richards, G., & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture? *Tourism Management*, 27, 1209-1223.
- Ross, C. E. (1990). Religion and psychological distress. *Journal for the Scientific Study of Religion*, 29, 236-245.
- Schwart, C. E., & Sendor, R. M. (1999). Helping others helps oneself: response shift effects in peer support. *Social Science & Medicine*, 49, 1563-1575.
- Science media. (2014). *Lancet global obesity report*. Otago: Science media.
- Statistics New Zealand. (2015, September 24). *Obesity*. Retrieved from Statistics New Zealand: [http://www.stats.govt.nz/browse\\_for\\_stats/snapshots-of-nz/nz-social-indicators/Home/Health/obesity.aspx](http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-social-indicators/Home/Health/obesity.aspx)
- Tesch, R. (1990). *Qualitative Research: Analysis Types and Software*. Bristol: Palmer PA.
- Uhrich, S. (2014). Exploring customer-to-customer value co-creation platforms and practices in team sports. *European Sport Management Quarterly*, 25-49.
- Valenzuela, S., Park, N., & Lee, K. F. (2009). Is there social capital in a social network site?: Facebook use and college students life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875-901.
- Walther, J. B. (1993). Computer mediated communication: Impersonal, interpersonal and hyperpersonal. *Communications Research*, 23(1), 3-43.
- Wellman, B. (2001). Computer Networks As Social Networks. *Computers and Science*, 2031-2034.
- Wellman, B., Hasse, A. Q., Witte, J., & Hampton, K. (2001). Does the Internet Increase, Decrease, or Supplement Social Capital? *American Behavioural Scientist*, 436-455.
- Williams, D. (2006). On and Off the 'Net: Scales for Social Capital. *Journal of Computer-Mediated Communication*, 593-628.
- Wolcott, H. F. (1999). *Ethnography: A way of seeing*. Rowman Altamira.
- Yip, W., Subramanian, S. V., Mitchell, A. D., lee, D. T., Wang, J., & Kawachi, I. (2007). Does social capital enhance health and well-being? Evidence from rural China. *Social Science & Medicine*, 64, 35-49.
- Zhang, X., & Chen, R. (2008). Examining the mechanism of the value co-creation with customers. *International Journal of Production Economics*, 116(2), 242-250.
- Zurher, L. A. (1982). The staging of emotion: A dramaturgical analysis. *Symbolic Interaction*, 5(1), 1-22.

## Appendices

### Appendix (A) Final collapsed coding scheme

Code name
Advice, opinions and informational support
Blame
Closure
Affirmation & network consensus
Consequences
Direct interaction
Dramatic statements & Narrative
Emotional hardship & Pain
Emotional support
Esteem support
Gratitude & Network acknowledgement
Emotional state of mind, anger, guilt, shame, frustration
Support, information and help seeking
Hope, optimism, positivity and success
Mistakes made & lessons learned
My story / experience & tale to tell
My story / experience interactive
Reflections, Predictions & warning signs
Religious support & belief
Shared personal experiences, solidarity & identification
Suspicion
Tough love, Choices and hard truths
Venting
Why / unanswered questions

# Appendix (B) Coding tabulations table

Code name	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	Topic 9	Topic 10	Topic 11	Topic 12	Topic 13	Topic 14	Topic 15	Topic 16	Topic 17	Topic 18	Topic 19	Topic 20	Topic 21	Topic 22	Topic 23	Totals
Advice, opinions and informational exchange	16	28	54	19	4	12	8	13	6	13	21	12	24	5	10	6	21	16	2	9	3	7	21	330
Blame	0	0	4	0	0	0	1	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	10
Closure	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Affirmation & network consensus	2	0	3	0	0	1	2	0	9	1	0	4	0	0	0	0	0	1	3	1	1	0	2	30
Consequences	0	0	4	1	0	4	0	0	1	3	3	0	0	0	0	0	1	1	0	0	0	0	0	18
Direct interaction	1	2	14	3	2	4	2	2	1	0	1	4	0	2	0	0	2	2	1	0	2	2	2	49
Dramatic statements & Narrative	0	0	8	3	1	4	4	0	1	6	3	0	8	4	1	0	3	1	0	2	0	3	0	52
Expressed emotional hardship & Pain	8	0	7	0	0	1	1	4	2	6	2	3	3	2	0	0	2	0	3	1	1	2	0	48
Emotional peer support	19	0	24	2	0	1	2	5	7	5	4	5	2	8	5	2	13	6	10	4	0	2	7	133
Esteem peer support	9	1	0	0	0	4	3	0	4	1	0	0	0	0	3	0	2	0	1	0	0	0	0	28
Gratitude & Network acknowledgement	5	5	13	4	9	6	2	4	2	6	2	2	2	8	3	2	3	1	2	0	1	0	6	88
Emotional state of mind, anger, guilt, shame, frustration	22	1	8	1	6	5	0	9	6	10	3	6	1	2	0	1	4	3	1	1	0	5	3	98
Help, Support and information seeking	2	13	9	11	2	8	2	2	0	7	6	2	4	1	4	3	9	2	0	2	0	0	3	92
Hope, optimism, positivity and success	16	3	4	1	0	3	7	0	1	0	2	3	12	0	3	1	4	9	4	0	0	3	1	77
Mistakes made & lessons learned	8	0	15	1	0	5	0	0	3	1	2	2	7	3	0	0	7	3	1	1	0	2	1	62
My story / experience & tale to tell	39	7	13	7	0	6	11	4	6	10	5	0	1	3	2	1	9	3	3	5	0	1	7	143
My story / experience interactive	16	4	15	19	4	1	1	7	1	0	8	3	22	0	0	0	4	4	2	0	1	5	4	121
Reflections, Predictions & warning signs	7	0	4	2	1	6	2	3	2	4	10	5	24	2	1	5	14	6	0	5	0	6	13	122
Religious support & belief	14	1	12	0	0	0	1	1	0	2	4	0	4	9	0	0	1	0	3	2	0	3	5	62
Shared personal experiences, solidarity & identification	22	1	13	22	4	10	3	8	5	3	10	15	2	8	2	0	12	6	5	1	5	9	4	170
Suspicion	5	0	2	5	0	1	0	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	18
Tough love, Choices and hard truths	6	2	32	0	0	6	1	4	3	5	12	0	2	2	0	0	3	11	1	3	0	1	3	97
Venting	16	0	5	2	2	6	2	2	1	5	4	1	1	0	0	1	4	0	1	5	0	6	3	67
Why / unanswered questions	4	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	2	0	0	2	0	12
Total codes used per discussion thread	239	68	263	103	35	94	55	73	62	91	102	68	120	59	34	22	121	75	45	42	14	59	85	1929
Total posts per thread	28	11	28	15	7	11	11	7	11	14	10	9	28	12	8	6	11	11	10	7	9	7	7	
Thread discussion creator posts	12	4	5	3	1	3	4	2	2	6	1	1	1	3	1	2	3	3	2	2	3	1	2	
Network replies	16	7	23	12	6	8	7	5	9	8	9	8	27	9	7	4	8	8	8	5	6	6	5	
Thread discussion date range	77 days	15 days	12 days	44 days	37 days	21 days	21 days	1 day	5 days	6 days	11 days	6 days	16 days	3 days	3 days	2 days	2 days	0 days 7 hrs	2 days	1 day	2 days	9 days	2 days	
Prevalency of code use 5%-9.99%	12	3.4	13.15	5.15	1.75	4.7	2.75	3.65	3.1	4.5	5.1	3.4	6	2.95	1.7	1.1	6.1	3.75	2.25	2	0.7	1	4.25	
Prevalency of code use 10% and above	24	6.8	26.3	10.3	3.5	9.4	5.5	7.3	6.2	9	10.2	6.8	12	5.9	3.4	2.2	12.2	7.5	4.5	4	1.4	2	8.5	
Total codes utilised	1929																							
Total Posts	278																							
Total discussion threads	23																							

Appendix (C) coding exemplars

<b>CODES</b>	<b>DESCRIPTORS</b>	<b>EXEMPLAR 1</b>	<b>EXEMPLAR 2</b>
<b>Advice, opinions and informational exchange</b>	The advice, opinions and informational resources offered within the network	<i>Heroin addicts are highly likely to relapse if all they do is detox. The cravings will be back as soon as they get out and can last up to 3 years. She's going to need a plan to acquire the tools to stay clean. In-patient rehab or intensive outpatient and sober living are the best ideas if she's following a 12 step program to stay sober. Many opiate addicts are not able to stay clean with just a 12 step program. If that's the case for her, then Suboxone methadone or Vivitrol are options. "</i>	<i>Call the police, see if you can have him sectioned under your laws, they can put him into a psychiatry ward to evaluate him. He is very violent and is acting out on those violent tendencies. He needs professional help asap before he hurts himself or someone else. He is a threat to himself and the public.</i>
<b>Blame</b>	Coping with blame	<i>You're doing him a favor by keeping him in jail. When he loses his job, he's going to blame you. Don't accept the blame. He's in jail because of his own behavior.</i>	<i>"It is so hard to make decisions like this. He would like you to think he will loose his job because of something 'you" do not do. He will be angry but how you feel needs to become more important.</i>
<b>Closure</b>	Closure to a difficult situation is found	<i>If our sons decide to return to right-living, we will be here waiting to embrace them with open arms. Until then, they will have to suffer the consequences of whatever actions they choose</i>	<i>As my husband and I sat out on the porch yesterday afternoon, we both remarked how much more relaxed we feel and how much more peaceful our home is now that our son is gone. It's a shame it has to be this way, but this is the reality of it. "</i>
<b>Consequences</b>	Potential consequences of actions discussed	<i>As for consequences, we don't give spouses consequences, but we do set boundaries. If it was me I would have separate account that he cannot get into. If he goes over the \$30 then he has to suffer the consequences for his own actions.</i>	<i>It is hard for us to cut the 'mommy strings' but he has to know the consequences to his actions, he is certainly old enough for that. I would let him figure this out on his own. I KNOW how hard this is to watch your child spiral downward, but you HAVE to know HE did this, not you!</i>

<b>CODES</b>	<b>DESCRIPTORS</b>	<b>EXEMPLAR 1</b>	<b>EXEMPLAR 2</b>
<b>Direct interaction</b>	Members directly interact with one another by name or user handle or take specific action on behalf of the network	<i>"Lainca that is a great 1st step. I agree with others, she really needs to seek a full rehab. At Least a 3 month inpatient treatment. That gives her the skills she will need to learn how to live with the addiction and get to the source of why and how to deal with that as well.</i>	<i>"Cottontail, I hear your anguish and pain. You and your husband love him, no doubt, but by giving him money, paying for his phone, jumping every time he calls, your enabling him.</i>
<b>Dramatic personal accounts</b>	Dramatic and emotionally-charged personal accounts	<i>The drug arrest. Bailed him out FOR THE LAST TIME. Attorney fee etc. went to detox, somehow kept his job. Started suboxone, seemed to be doing well. Kept on not hearing from him about repaying \$. Showed up for Easter and seemed fine. Today got called - he's in jail for robbing a bank. No weapon or anything. Wants us to bail him out &amp; his face is in paper. Says he'll keep his job is we bail him out. I want to do it! But what good will it do? He'll just get out and use &amp; his job has to be a lost cause anyway, right? Please help me?</i>	<i>He died, they revived him with 5 hits or narkan and paddles. He used the MINUTE he got out of the ER, they checked him out and released him, knowing he was an addict. SMH....he had a dream, he said, wouldn't tell me what, and called for a ride to rehab and been there ever since.</i>
<b>Emotional state of mind, anger, guilt, shame, frustration</b>	Emotional state of mind expressed, anger, frustration, despair, guilt, shame, etc.	<i>I feel so lost and empty and hate more then anything.</i>	<i>I feel guilty but I have had a different outlook on life the last few days and have not been bothered by the fact that he is incarcerated. I love him dearly and would do anything I could for him but I just do not want him to come back to my home.</i>
<b>Emotional support</b>	Expressing empathy, reciprocated emotion and general support	<i>"I am so sorry you are going through this again. We understand your pain. I will pray for you and for the confrontation. please take care of yourself and let God take care of him xoxo "</i>	<i>I wish you much strength and hugs and prayers to you! STAY STRONG! "</i>
<b>Esteem support</b>	Compliments, praise and solidarity	<i>And you are being so strong with your oldest. And his little efforts would melt my heart...it's so hard to be a MOM of addicted. Troubled children...thoughts and prayers for you. "</i>	<i>" You are so brave....by doing the right thing for those kids...and NOT thinking you can save everyone</i>

<b>CODES</b>	<b>DESCRIPTORS</b>	<b>EXEMPLAR 1</b>	<b>EXEMPLAR 2</b>
<b>Gratitude &amp; Network acknowledgement</b>	Thanks, gratitude and praise expressed	<i>"Hoping, thank you for your words of encouragement. Thanks to all of you. We are in a very painful place right now. Our addict swears he is not using again. Maybe he isn't, but the fact remains that his old patterns of laziness and using people haven't changed."</i>	<i>"Thank you all for your posts. It helps me to believe that I'm possibly doing the right thing by not bailing him out."</i>
<b>Help, Support and information seeking</b>	Help, support and information sought.	<i>Daughters first time to detox what should I expect? I could use some input here.</i>	<i>Son that threatens suicide - please help?</i>
<b>Hope, optimism, positivity and success</b>	Hope, optimism, positivity and success expressed	<i>I pray he truly is remaining clean, but I can't help but be VERY cautiously optimistic. "</i>	<i>"Oldest son {recovering addict} FINALLY had a job interview yesterday. It went well and he's waiting to hear today if he's hired. *PRAYING HARD*</i>
<b>Mistakes made &amp; lessons learned</b>	Expressions of past mistakes and lessons learned	<i>At 26, it's time for him to grow up and get his life together. Enabling our older son for too long taught us many valuable lessons. Never again.</i>	<i>One thing I've learned from addiction (my ex was an alcoholic and cocaine addict, VERY hidden) is that you can lead the horse to water, but you can't make him drink. An addict has to WANT to get better, has to WANT the help and SEEK the help.</i>
<b>My story / experience &amp; tale to tell</b>	Support seekers, personal narrative, experiences and staged emotion.	<i>It's all falling apart . . . again. Once again, I find myself grieving over the child I used to have...who is this man he's become? Our 29-year-old addict entered rehab last summer - after doing some jail time for drug-related charges. His behavior is exactly like it was before rehab...mood swings, manipulating, up one minute, angry &amp; belligerent the next. His doctor put him on Tramadol back in January. After reading about it, I'm wondering...is this what's causing his apparent relapse? Doesn't he see what's happening? Is he using again? Is he just a con-man? We are telling him today he has until April 1 to get out of our house. I DREAD the confrontation ahead. My stomach is in knots, but I just can't do this any longer. Someone, please help me.</i>	<i>My 35 year old has been an addict for 16 years. Some clean years which have given me hope. Last year was bad. Traffic violations etc. landed him in jail, car in impound. Ok, helped with that due to 2 good years. The drug arrest. Bailed him out FOR THE LAST TIME. Attorney fee etc. went to detox, somehow kept his job. Started suboxone, seemed to be doing well. Kept on not hearing from him about repaying \$. Showed up for Easter and seemed fine. Today got called - he's in jail for robbing a bank. No weapon or anything. Wants us to bail him out &amp; his face is in paper. Says he'll keep his job is we bail him out. I want to do it! But what good will it do? He'll just get out and use &amp; his job has to be a lost cause anyway, right?</i>

<b>CODES</b>	<b>DESCRIPTORS</b>	<b>EXEMPLAR 1</b>	<b>EXEMPLAR 2</b>
<b>My story / experience interactive</b>	Member responses to support seekers, laden with personal narrative, stories, experiences and staged emotion.	<i>"My 27 year old son is an opiate addict that I am going to pick up from rehab on Monday (he needs more but is not willing at this time). I took him for a drug and alcohol evaluation and they immediately got him into detox. After 2 weeks he was able to get into rehab and has been there almost a month. He point blank told me (2 weeks into rehab) that he can find what he wants/needs anywhere within a very short amount of time. I don't believe there is any "keeping them safe". He did very well on a Suboxone program for 2-3 years and then the wheels fell off and here we are. I am grateful he is alive. I hope your daughter is able to get into a rehab program, because like others, I believe that just detox is not going to be enough. "</i>	<i>We took my 36 year old brother in after his 3rd trip to rehab. His recovery lasted a mere 1 month. We told him zero tolerance and meant it and told him to leave. We were greeted with the most vile and evil yells and threats. I still can't believe those things came from him along with the scariest glares and rage screaming's. He too told me he had no intention of leaving until I had a court order conviction. I was shocked!!! Then the calmer I tried to talk to him the more he raged. Then he actually threatened my life. I had no choice but to call the police on this stranger that I love but no longer recognize.</i>
<b>Network consensus and affirmation</b>	Consensus achieved between network members, either affirming the support seekers decision of providing them with substantive advice.	<i>I agree with others, she really needs to seek a full rehab. At Least a 3 month inpatient treatment. That gives her the skills she will need to learn how to live with the addiction and get to the source of why and how to deal with that as well. Sadly we can't 'keep them safe'. They need to learn how to stop the addiction, learn to live a sober life etc. It isn't an easy battle for them by far.</i>	<i>"I agree with everyone else. Do not bail him out. Losing his job is the least of his problems. He is going to go to prison if he robbed a bank and he's going to lose his job either way. If he's that desperate, he could get himself into even more trouble while out on bail. You're doing him a favor by keeping him in jail.</i>
<b>Reflections, possibilities &amp; dangers</b>	Reflections, possibilities and potential warnings discussed	<i>I pray that you will have strength &amp; resolve to do what is essential. It will hurt - worse than any pain you could ever feel - but the result could be a clean child, free of addictions, and a life restored.</i>	<i>Will there ever be a CURE and will I ever stop worrying and will I ever feel Normal or is the new norm? "</i>
<b>Religious support &amp; belief</b>	Religious orientated support offered	<i>As long as you are there to bail your son out of trouble, you are interfering with God's ultimate plan and preventing your son from a personal encounter with Him. We made the mistake of "helping" our son for over 10 years. Only when we stopped enabling him by coming to his rescue was God able to rescue him for the long term</i>	<i>I know from personal experience that the toughest thing we as parents must do is COMPLETELY turn our prodigal child/children over to God's care...this means letting go of them, refusing to "help" {enable} them financially, legally, etc., and allowing God to work in their lives in His own way and in His own time.</i>



<b>CODES</b>	<b>DESCRIPTORS</b>	<b>EXEMPLAR 1</b>	<b>EXEMPLAR 2</b>
<b>Shared personal experiences, solidarity &amp; identification</b>	The sharing and exchange of similar personal stories and experiences, solidarity and identification expressed.	<i>"Cardinal, your saying "you're putting the handcuffs on yourself" and "you are owning his choices" really got my attention. That is exactly what I have been doing with both of my sons, taking responsibility for their actions...not good. Thank you for the reminder. "</i>	<i>"I have been where you are...I'm kinda where you are now...except my son is not threatening ME in anyway...but he is putting a lot of financial responsibility on me..and he also talks about suicide or jail too much for my comfort. Says he doesn't see his life anywhere but on a cart in the jail.</i>
<b>Suspicion</b>	Suspicion expressed	<i>I have a great deal of suspicion and mistrust. From the time he was 18 until age 28, he was an addict and therefore also a user, manipulator, etc.</i>	<i>I can't help but wonder if he's planning, in his mind, just to move in with her and start mooching off her. Does he plan on finding a temporary place to "crash" for free for a couple of months until June? He still hasn't gotten a job. Claims he's been looking {online} but I don't know if that's true or not.</i>
<b>Tough love, Choices and hard truths</b>	Members face extremely difficult situations, these situations are discussed and hard to accept opinions and advice are offered.	<i>"Repeat after me: NO... Now again ... Bailing him out only allows him To go on his merry way ...as much as it goes against your "mommas heart" stay strong and SAY NO "</i>	<i>All I know is that he's 29 years old and he needs to get out of our house and out on his own once and for all. Our other son {age 26} is also using but doesn't live with us. Lately he's been asking if we have any odd jobs he can do to earn extra money because he's "gonna end up homeless" because he can't pay his bills. He is NOT coming back home.</i>
<b>Venting</b>	Open expressions of frustration or strong emotion to a supporting network,	<i>"Our recovering addict 29-year-old son has until April 19th to move out of our home. At present, he doesn't appear to be moving ahead with any concrete plans. When we remind him of the fact that his car has been sitting on our property for a year and a half and that he needs to fix it, have it inspected, get insurance &amp; tags for it, he feels it won't be a big deal to do so...even though he has a past DUI. We can't figure out if he really believes it's no big deal, if he knows it is a big deal and is trying to play it down, or if he thinks we're bluffing with the April 19th deadline. I posted the date on the wall of his room as a constant reminder, but we don't see much action.</i>	<i>We told our son last night that he has 1 month to get a job and line up someplace else to live. We can't continue supporting an able-bodied 29-year-old man who seems perfectly content to live in our house, eat our food, and drive our vehicles...and "borrow" money from us.</i>

<b>CODES</b>	<b>DESCRIPTORS</b>	<b>EXEMPLAR 1</b>	<b>EXEMPLAR 2</b>
<b>Why / unanswered questions</b>	Members ponder why and how they have ended up in such circumstances	<i>We did everything we could possibly do to help him but he rebuked us, told us off, and left. No appreciation, no apology, nothing. Just ugly words and hurt feelings.</i>	<i>Please would you pray for my son? I don't know what else I can offer him, he can't get much lower than he is now.</i>

Appendix (D) Roll call data

Member	Gender	Family Role	Addict	Recovered
Blue Violet	F	Mother	Son	6 yrs recovered
kimpalmer	F	Wife	Husband	6 Weeks Clean
Ani99	F	Mother	Self / Son	Recovered
bpulli1	F	Mother	Son	1 year 5 Months
charlize111	F	Mother	Son	In recovery
cottontail	N/A	Parent	Son	15 weeks
Dee Higs	N/A	Parent	Child	Addicted
dmatt124	F	Mother	Son	Addicted
donna7455	F	Mother	Son	3 Yrs 6 mnths
Earlybird101	F	Mother	Son	Addicted
earlyrose	N/A	Parent	Child	3 years
Erin92	F	Mother	Son	Addicted
Hopingforsunnydays	N/A	Parent	Son	3 years recovered
llovehope	M	Self	Self	6 yrs recovered
lsaddress	F	Mother	Son	40 Days clean
Jaber	F	Mother	Son	4 months clean
jainlor	F	Mother	Daughter	Addicted
Jersey Jenus	F	Mother	Daughter	Addicted
jms7229	F	Daughter	Mom/Brothers	Addicted
jonathansmom	F	Mother	Daughter	20 Months clean
LoriFla	F	Wife	Husband	Addicted
LoveLifeHappiness1	F	Mother	Son	11 Months clean
mallen21345	F	Wife	Husband	Addicted
Misssy 2	F	Mother	Son	5 Months Clean
MomOfaStranger	F	Mother	Daughter / Son	Clean
patnard	N/A	Parent	Son	Addicted
plantlover	F	Daughter	Mother	1 Year clean
rsnation	F	Mother	Son	60 days clean

28 total	%	Member Gender	%
10 addicted	36	22 Female	78
18 recovered	64	1 Male	4
		5 unidentified	18

Addicted family member	%
22 children	73
3 husbands	10
2 Mothers	7
1 sibling	3
2 members ex addicts	7

Member role	%
22 Parents	76
2 Daughter	7
3 Wives	10
2 Addicts	7

Appendix (E) Table of membership

Member	
Blue Violet	Cardinal39
kimpalmer	VickyFrankRickert
Ani99	Leighla101
bpulli1	Lainca
charlize111	Susan55
cottontail	gordos4
Dee Higs	cab6
dmatt124	marg6300
donna7455	mpcabo
Earlybird101	Kittencaller
earlyrose	RossHomes
Erin92	pistoff
Hopingforsunnydays	startingover2011
llovehope	kimberlysusanne
Isadness	blessuall
Jaber	Prettypama
jainlor	Katrinka
Jersey Jenus	IamDonetoday
jms7229	Charcare15
jonathansmom	Leemoore
LoriFla	brok3nh3art
LoveLifeHappiness1	merh130
mallen21345	RJays7
Missy 2	cantdoitaloneagain
MomOfaStranger	Pen125
patnard	inneedofsupport
plantlover	LippyLaurs
rsnation	Changeforbetter101
Startingover 2007	Mellody
	choas123
	needingencouraged