

Exploring Peripheral Member Engagement in a Virtual Health Care Professionals'

Network

By

Ho-Wang Tom Ying

BSc, University of British Columbia, 2007

BSN, University of British Columbia, 2009

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

MASTER OF NURSING and MASTER OF SCIENCE IN HEALTH INFORMATICS

in the Schools of Nursing and Health Information Science

©Ho-Wang Tom Ying, 2018

University of Victoria

V00754782

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

Supervisory Committee

Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network

By

Ho-Wang Tom Ying
BSc, University of British Columbia, 2007
BSN, University of British Columbia, 2009

Dr. Noreen Frisch, Co-Supervisor
School of Nursing

Dr. Elizabeth Borycki, Co-Supervisor
School of Health Information Science

Abstract

Peripheral members, or lurkers, make up the majority of membership in an online network, but not much is known about them as they are not publicly active (e.g. Post online). Data on the lurker population of Nurses and Health Care professionals in electronic Communities of Practice (eCoP) is also lacking. InspireNet was a British Columbia based virtual community that aimed to increase capacity for health services research for health care professionals. It had nearly 4000 members nationwide and it was an active community as users were posting on discussions and blogs daily. However, many members did not post online, so it was suspected a large lurker population existed. The purpose of the study was to conduct an exploratory study to understand the experience of lurkers on InspireNet and determine how nurses or health care professionals interacted, barriers to posting online, and whether or not they wished to remain a lurker. Conventional content analysis was used as the methodology to conduct this qualitative study with 15 participants via online interviews. The results showed that lurking was not indicative of the level of engagement, as most were engaged in InspireNet content or were connected to other members (e.g. Core Members). Lurkers were not opposed to posting online, but required relevancy to their work and ease of using the website as prerequisites. Lurkers had difficulty finding information on the InspireNet website. It is important to engage all members of an online network. Strategies to engage lurkers include supporting their informational needs by improving website usability, incorporating advanced search features, and providing value (e.g. Relevant content, topics, and webinars).

Table of Contents

Supervisory Committee	ii
Abstract	iii
Table of Contents	iv
List of Tables	vii
List of Figures	viii
Acknowledgments	x
Chapter 1 Introduction	1
1.1 Background	1
1.2 Peripheral Behaviour in Virtual Networks.....	2
1.3 Participation on InspireNet	3
1.4 Rationale and Significance.....	4
1.5 Problem Statement	7
1.6 Benefits of this Research	8
Chapter 2 Literature Review	10
2.1 History	11
2.2 The Value of Lurkers	17
2.3 Reasons for Lurking.....	18
2.4 Health Care Professionals as Lurkers	24
2.5 Gap in the Knowledge	28
Chapter 3 Method	30
3.1 Theoretical Framework	31
3.1.1 Social Network Diagrams	32
3.2 Study Sample	34
3.2.1 Inclusion Criteria.....	34
3.2.2 Exclusion criteria:	35
3.3 Recruitment:.....	36
3.4 Sample Setting	38
3.5 Limitations	39
3.6 Data Collection	40
3.7 Data Analysis	41
3.8 Ethical Considerations	43
Chapter 4 Presentation and Discussion of the Findings	46
4.1 Introduction.....	46

4.2 The Participants	46
4.3 Findings.....	48
4.4 Behaviour	49
4.4.1 Engagement with InspireNet.....	53
4.4.1.1 Heavily Invested in Electronic Subscriptions	53
4.4.1.2 Participation in Webinars.....	55
4.4.1.3 Posting on InspireNet.....	56
4.4.1.4 Used Gained Knowledge from InspireNet.....	57
4.4.1.6.1 Lack of Time.....	61
4.4.1.6.2 Lack of Relevancy	62
4.4.1.6.3 Information Fatigue.....	64
4.4.1.7. More Involved with InspireNet Before	66
4.4.2 Social Media Usage	66
4.4.3 Perception of Contribution Value	70
4.5 Communication.....	71
4.5.1 Intention to Post	75
4.5.2 Reasons for Not Posting.....	76
4.5.2.2 Considers Oneself Passive	77
4.5.2.3 Rather Connect in Other Ways	78
4.5.2.4 Privacy Concerns	79
4.5.2.5 No Need to Post	80
4.5.2.6 Lack of Time.....	81
4.5.3 Reactions from Posting Online	82
4.5.3.1 Positively.....	82
4.5.3.2 Depends on Comment.....	83
4.5.3.3 Neutral.....	84
4.5.3.4 No Response	85
4.5.3.5 Negatively	86
4.5.4 Preference for In-Person Interaction.....	87
4.5.5 Preference for Real-Time Interactions.....	88
4.5.6 Communication with Other Members Changed Over Time	89
4.5.7 Communication Preferences When Asking Questions	91
4.6 Expectations of InspireNet.....	93
4.6.1 Attracted to InspireNet Content	95
4.6.2 Expectations of InspireNet were Met.....	100

4.6.3 Opportunities for Improvement	102
4.6.3.1 Expectations were not Met.....	102
4.6.3.2 Accessibility and Usability	104
4.6.3.3 InspireNet was not yet a Community of Practice.....	107
4.6.3.4 Personal Responsibility.....	108
4.6.4 How much have Members Benefitted from their Membership?.....	109
4.7 Community and Connections.....	111
4.7.1 Connections to InspireNet Members.....	113
4.7.2 Feelings Towards Posters.....	117
4.7.3 Feelings Towards Lurkers.....	118
4.7.4 Feelings about Being a Community Member	119
Chapter 5 Summary, Discussion and Conclusion	124
5.1 Summary and Discussion.....	124
5.2 Limitations	130
5.3 Conclusion and Future Research Recommendations.....	131
5.4 Contributions to Nursing and Health Informatics Education.....	132
5.5 Contributions to Nursing and Health Informatics Practice	133
5.6 Implications for Nursing and Health Informatics	133
References.....	135
Appendices.....	140
Appendix A: Research Questions	140
Appendix B: Recruitment Materials:	145
Appendix C: Letter for Research Funding.....	147
Appendix D: Ethics Approval.....	153

List of Tables

Table 4.1 Demographic Information.....	47
Table 4.2 Behaviour Theme and Sub-Themes	52
Table 4.3 Health Care Information Consumption.....	65
Table 4.4 Social Media Participation.....	68
Table 4.5 Communication Themes and Sub-Themes	73
Table 4.6 Intentions for Posting Online	75
Table 4.7 Reasons for not posting	76
Table 4.8 Expectations of InspireNet Themes and Sub-Themes	95
Table 4.9 Attracted to InspireNet	96
Table 4.10 Community and Connections Themes and Sub-Themes	113

List of Figures

Figure 3.1 Social Media Network Nodes (Krebs, 2007)	34
Figure 3.2 InspireNet Homepage	39
Figure 4.1 Four Overarching Themes.....	49
Figure 4.2 Hierarchy Chart of Behaviour Theme	51
Figure 4.3 Hierarchy Chart of Communication Theme	72
Figure 4.4 Hierarchy Chart of Expectations of InspireNet Theme	94
Figure 4.5 Hierarchy Chart of Community and Connections Theme	112

Acknowledgments

I offer my sincerest gratitude to my thesis committee members Dr. Noreen Frisch and Dr. Elizabeth Borycki for their endless support through the course of this research study. Additional mention needs to be given to the countless graduate studies administration staff that have helped me navigate through this process. Finally, I thank the faculty and my fellow peers for continuing to inspire me through this graduate program.

I especially thank my wife, Karen and my parents, who have patiently supported me throughout all these years.

To my dear wife, Karen, for her endless patience, love and support.

Chapter 1 Introduction

1.1 Background

Virtual networks are online environments where individuals sharing a focus of interest in a particular field can learn, discuss, and collaborate. They are one of the many Web 2.0 technologies available (e.g. interactive websites, blogs, wikis, databases), which allow for online communication between multiple users, either in real-time (synchronously) or at a later time (asynchronously) (Frisch et al., 2014). This ability to interact and communicate with data appeared with Web 2.0, as Web 1.0 - the original iteration of the World Wide Web – was technologically limited and consisted of content primarily for consumption (Cormode, G., & Krishnamurthy, 2008)

Leveraging virtual networks in health care allows for nurses and other health care professionals to join the online organization as members and gain access to a variety of benefits, such as professional development, research material, or networking with other members. It is not usually mandatory for users to join the online network in order to access information, but more often than not, membership unlocks more rewards. For instance, one of the major benefits of membership that some online communities offer is the ability to participate in virtual teams or forums called eCoPs (electronic communities of practice). These virtual communities are based on the concept of communities of practice (CoPs), in which individuals sharing a common professional interest can learn from each other (Lave & Wenger, 1991). ECoPs are a subset of CoPs, with the primary difference being that they are conducted in the online setting. These concepts have their roots based on Bandura's Social Learning Theory, which theorizes that one can learn from others in social contexts through observation or modeling (Bandura, 1971). Members can actively discuss, learn and connect with other members in eCoPs on niche specific topics that fit under the umbrella focus of the virtual network. For instance, a professional virtual

network could be focused on the broad topic of Nursing, while various eCoPs could be centered on Nursing students, research or electronic health records. From this point forward, eCoPs, online communities and virtual networks will be interchangeably used terms for the purpose of this research as it relates to online participation.

Virtual networks can be beneficial and participation in eCoPs can complement the knowledgebase of health care professionals, as studies have shown that “passive dissemination of evidence through journals and clinical practice guidelines is inadequate when used alone as an intervention to change the practices of the health professionals” (Ho, Jarvis-Sellinger, Norman, Li, Olatunbosun, Cressman, 2010, p. 139). These communities hosted in the online setting enable members to start or participate in active online discussions with others in a quick and efficient manner. Traditional boundaries associated with face-to-face interactions such as distance, time, and cost are overcome when eCoPs are used (Demiris, 2006). Health care professionals have found positive benefits associated with using eCoPs, such as improving the sharing of knowledge, best practices, and evidence-based decision-making (Ho et al., 2010; Ikioda, Kendall, Brooks, Liddo, & Shum, 2013). There are numerous studies that have documented successful eCoP implementations, such as virtual clinical classrooms (Hara & Hew, 2006; Van Soeren, Devlin-Cop, Maude MacMillan, & Reeves, 2012) and multidisciplinary collaborative platforms for clinical and research settings (Richardson & Cooper, 2003).

1.2 Peripheral Behaviour in Virtual Networks

The success of virtual networks is largely dependent on the level of participation and engagement from its members (Volkman, 2011). However, participation rates (i.e. posting or commenting online) in these online settings has been low, with the majority of the membership not participating actively (Ikioda et al., 2013). Low rates of online interaction and knowledge

sharing among members could potentially be serious issues, as it has often been suggested that low contribution rates lead to an eCoPs failure (Sandars, 2007; Tamjidyamcholo, Bin Baba, Shuib, & Rohani, 2014). It is not that participation rates must be visibly high in order for eCoPs to remain successful (Edelmann, 2013), but rather, health care professionals should be sufficiently engaged with one another in order to foster intra and inter-professional development to improve patient-centered care in the context of an eCoP (Ho et al., 2010). There may already be adequate engagement in the eCoPs that is undetectable, as online posting and commenting are only forms of visible participation. The majority of users who choose not to participate in online communities consist of “peripheral members”, which from this point forward will be synonymous with the term “lurker” for the remainder of this document. As defined in this research study, a lurker or peripheral member is referred to those individuals in an online community that have not posted/commented online within the last six months. Other researchers may define a lurker differently (for other definitions, refer to the literature review section). In this study, posters are those individuals that have posted within the last six months to an online community, and this group can include super users (e.g., accounting for the majority of posts) or regular contributors (e.g., post from time to time) (Nielsen, 2006)

1.3 Participation on InspireNet

InspireNet (Innovative Nursing Services and Practice Informed by Research and Evaluation Network) began in 2009 with the intent of sharing and promoting British Columbia’s health services research to nurses and later on, to other health professionals (Frisch et al., 2014). Open access information, blogs and teaching materials were available to website visitors and additional password protected resources were accessible to members, such as a membership database, eCoPs and monthly newsletters. Membership was complimentary and allowed the

opportunity for members to join various eCoPs, each with its own discussion groups, wikis, blogs and WebEx meetings. Like many professional virtual networks from other industries, InspireNet experienced variable participation rates (i.e. posting or responding online) in blogs, wikis and discussion groups. It was suspected that a smaller “core” or “Super-User” group was responsible for the majority of participation on InspireNet, whereas a much larger “peripheral” or “lurker” group exhibited limited participation (Frisch et al., 2014). This was found to be a similar phenomenon in many online communities, where individuals that comprised the Core group contributed to most of the posts, comments, and content, while the peripheral population did not. The Core group has been extensively studied in the literature, as their active online participation allows it to be studied easily. However, there was a gap in the literature on lurkers, specifically nurses and other health care professionals, regarding *how* they participate in eCoPs and *why* they behave in this manner. Therefore, this study explored the experience of lurkers on InspireNet, in terms of how they participated and/or interacted with resources and other members, why they lurked, and whether they were content to be a lurker. The results of this study contributed to the nursing informatics and nursing research by helping practitioners to better understand what it means to be a lurker and how lurking fits within the larger online community. Additionally, the findings of this research have uncovered potential barriers to lurker participation in online communities. Such research could be used to improve the way in which online communities are implemented or maintained so that online communities are better able meet the needs of the lurker population.

1.4 Rationale and Significance

InspireNet was a virtual network that provides members the flexibility to connect both synchronously and asynchronously using Web 2.0, social media, and web conferencing

technologies. Membership was free and participation was voluntary. It was imperative to collect, analyze and evaluate data on the growth and membership of InspireNet, as it was likely one of Canada's first health care professionals' network to operate solely online using these technologies (Frisch et al., 2014). Results from this study improved understanding of InspireNet's membership activity, specifically in terms of the lurker population and the various ways these individuals were engaged. InspireNet was privileged to be a virtual network with eCoP environments for not just nurses, but other health disciplines. Understanding membership engagement will be beneficial to fostering intra and inter-professional collaboration in both clinical and research environments (Richardson & Cooper, 2003). The findings from this research could be used by other organizations that want to understand how to create highly engaging virtual eCoPs for health care professionals.

Since the inception of InspireNet in 2009 to May 28, 2015, membership had grown to over 3,960 individuals at the time of this study. Efforts had been made to monitor and evaluate the membership to determine the value of this professional online network; two member surveys, focus groups and interviews have been conducted, in addition to ongoing website visitor tracking. Although the findings from these evaluations had been positive and valuable in furthering our understanding of virtual professional networks, the results from the less than ideal response rates of 10-18% (Frisch et al, 2014) may not be reflective of the opinions and needs of the entire membership database. In addition, the number of online posts and content on InspireNet seemed to come from a small, consistent group of members. It was suspected that these members made up a "core" group, whereas the remainder of the membership constituted the much larger "peripheral" group (Frisch et al., 2014). Interestingly, these response rates correlated to those outlined in the "one percent rule". The one percent rule, or the principle of 90-9-1, stipulated that 90 percent of the membership in online communities were lurkers or

peripheral members that do not contribute online (e.g. posting), nine percent were occasional or active contributors, and one percent were the superusers or core members responsible for most online activity (e.g. posting, content creation) (Nielsen, 2006). This built on the earlier work by Nonnecke and Preece (1999), who found that core and peripheral members in eCoPs exhibited high and low participation rates in the form of posting or replying online, respectively.

Whether or not it appeared that only a core group of members were contributing and posting on InspireNet, one cannot come to the conclusion that peripheral members do not participate at all, as they might be active in other ways (Frisch et al., 2014). For instance, perhaps instead of participating in evaluation surveys, which peripheral members may view as benefiting the organization or requiring extra time, they may instead be spending time on activities that immediately and directly benefit themselves, such as participating in webinars, using the membership database to connect with other members, or reading online content for entertainment or work purposes. Web trafficking statistics indicated the InspireNet database (members only access) was accessed on average 300 times/month and the website was visited on average 8600/month (InspireNet, 2014). These data highlighted a substantial amount of activity generated by members and visitors, but due to privacy concerns, personal identification of website usage cannot be cross-matched to membership. As a result, it was understood that InspireNet offered value to its users as indicated by the amount of usage, but it is largely unknown whom, how and why users were active in these ways instead of posting or commenting online.

The InspireNet Evaluation team did not have much data on this population of peripheral members (i.e. lurkers), as they have not conducted any research specific to this group. Since the peripheral membership on InspireNet likely has not participated in past evaluations, and likely make up the majority of the membership, it was important to study this population in order to

determine whether the needs of the majority of members were met. Conducting research on this group was also important to help determine the social capital or value of InspireNet in terms of its benefits for its members. To understand the value of an online community, it was imperative to understand how the entire membership was engaged, and not be focused only on perceivable activities from active members, such as posting online (Takahashi, Fujimoto, & Yamasaki, 2003). Another important reason for research of this population was because the act of lurking was an action that everyone did at some point in his or her membership (Farzan, Dimicco, & Brownholtz, 2010; Lave & Wenger, 1991; B. Nonnecke & Preece, 2000; Blair Nonnecke, East, & Preece, 2001; Soroka, 2004). Therefore, it was essential to study this universal behaviour, as it was central part of social behaviour in virtual networks (Edelmann, 2013). As Edelmann (2013) stated regarding lurkers, “Ignoring, dismissing and misunderstanding them will distort how we understand online life, as well as lead to mistakes in the way sites and strategies for increasing online and offline participation are organized and designed” (p. 647).

1.5 Problem Statement

The peripheral membership on virtual networks in health care is poorly understood. This research intended to better understand the population of nurses and other health care professional members on InspireNet that exhibit peripheral participation, or lurking behaviours. Specifically, the researcher was interested in understanding a lurker’s experience, such as how they were using InspireNet, why they lurked, and whether they were content with remaining a lurker. Determining the activities of lurkers helps to reveal the nature of their relationships with other members on InspireNet, such as if they were connected to others simply by what they read, or whether they were connected on a deeper level via personal correspondence (e.g., email, LinkedIn® messaging, phone calls, face-to-face). The reasons as to why lurkers behaved in this

manner revealed factors important for improving relationships between lurkers and other members (e.g., strengthening weak ties). Finally, understanding lurkers' intention for remaining "invisible" helped to determine how organizational resources should be allocated to improve engagement with this group. Participants may be content with lurking and sustaining their current engagement levels with other InspireNet members in this manner. These results on the interconnectedness between lurkers and InspireNet members provided a clearer perspective into the types of relationships that form the InspireNet network.

Research Questions:

The three main research questions that the researcher intended to answer were:

1. How do lurkers use and/or interact with InspireNet?
2. What are the reasons and/or barriers to lurkers not posting online?
3. Are lurkers content with remaining a lurker?

A semi-structured interview approach was used to answer these questions with registered InspireNet members. All registered InspireNet members were contacted to obtain a convenience sample. Participants were subjected to a clear inclusion and exclusion criteria. Aside from registered members, there were also members of the public that visited the website. However, since the study was just interested in the members of InspireNet and not the public access parts of the network, only registered members of InspireNet were contacted.

1.6 Benefits of this Research

Research on the large, yet unstudied lurker population could uncover valuable feedback on systems issues that could be remedied to improve member participation, or direct future developments for InspireNet (e.g., new eCoPs, guest speakers, or website usability enhancements). Results from this study may improve and benefit InspireNet and nursing and

other health professions with enhanced engagement in online communities. In addition, the vitality and successful future of virtual networks, such as InspireNet, is dependent on a generation of new leaders and core members. Cranefield, Yoong and Huff (2011) affirmed the importance of de-lurking, or transforming lurkers into more active members, as the pool of core members depletes over time (e.g., retirement, practice/role/organizational change). Core members are community leaders; their roles are critical for sustaining membership integration, eCoP participation and development (Borzillo, Aznar, & Schmitt, 2011). It is plausible and ideal for core members to be derived from existing members that lurk, as they would already be familiar with the organization.

Chapter 2: The Literature review will be the focus of next section of this paper. A comprehensive summary of the existing research and the gap in knowledge in this subject area is covered. Chapter 3: The Methodology follows after this and it discusses the theoretical framework used to conduct this research study and includes the sections on the study sample, recruitment, limitations, data collection, and ethical considerations. Chapter 4: Data analysis is the next chapter, and this presents the significant findings of the study results and uncovers the themes and meta-themes. Chapter 5: The Conclusion is the last chapter in the thesis. It covers the study's significant findings, limitations, contributions and implications to Nursing and Health Informatics practice and education, and summary.

Chapter 2 Literature Review

The researcher conducted a review of the literature with five databases (CINAHL, PubMed, University of Victoria Library, CRNBC library, and Google Scholar) and included the grey literature from 2005 onwards. From utilizing the UVic online library and including the option ‘add results beyond the library’s collection’, a search on the term “lurker” returned over 26 thousand results. A more specific search of “lurker AND community of practice” yielded 8162 results and a search of “lurker AND community of practice AND health care professional” returned 4816 results. With the addition of the keywords “electronic”, “virtual” and “professional”, 3367, 3315, and 4816 results were returned, respectively. There were many results were returned, yet few were relevant enough and most were not centered specific to the lurker population. The researcher conducted additional searches by restricting the title of the article to contain “peripheral member OR lurker” and all fields to contain “community of practice”. This returned 33 results. More searches were completed using the terms: health care professionals, nurses, nursing, health informatics, lurkers, peripheral members, virtual networks, professional participation, Web 2.0, social media. All search results were reviewed and 53 relevant articles were retained to produce the literature review below. The process for reviewing and retaining the articles were based on relevancy with respect to the sections required to compile the literature review. These sections included but were not limited to the history of lurkers and communities of practice, definitions and prevalence of lurkers online, why lurkers lurked, and health care professionals as lurkers. Titles of articles were read first and if relevant, then abstracts and full articles were subsequently reviewed. In order to gain an in depth understanding about this topic, the inclusion criteria for retaining articles was broad, and many articles were reviewed and retained for the literature review if they contained data that pertained

to the sections listed above. Research articles were excluded if they were older than 2005 or if they were based on lurkers as patients. However, there was an exception to this. For example, some articles older than 2005 were included, as much of the initial research on the lurker population was conducted before this year.

It is important to note that although there were 26 studies found that explored online participation of health care professionals in eCoPs, and five of these studies briefly discussed lurker participation - none specifically focused on lurkers or answered the questions as outlined in the problem statement and research questions section. These articles were still used though as it is relevant information for the literature review. Since no articles were found that exclusively investigated lurker populations consisting of health care professionals in CoPs, the research as outlined in this research thesis is worthwhile because it fills a gap in the literature.

2.1 History

In today's digital age of the Internet, many online websites and communities now operate on the Web 2.0 platform. Web 2.0 is unique in that it facilitates social dialogic communication and transmission between many sources and many receivers (Pavlik & McIntosh, 2014). Not only is there an ability for one to broadcast ideas, thoughts and original work for others to see online, but this process is also bidirectional - those that receive the data can in turn express feedback, improve on ideas, and co-create. This form of 'social media' is powerful as it enables relationship building, while at the same time, it removes the traditional barriers of organization of meetings, geographic distance and time. Research on online participation is vital because there is a potential for mitigating identified barriers, which would further enhance the ability of people to connect online.

There are many types of social media in existence. Depending on the purpose and audience of social media, the technology broadly fits within the following categories, but these categories are ever expanding and changing as technology advances: communications, human resources, sales, marketing, service, development, brand, and community (Solis, 2007). For the purpose of this research, virtual professional networks are a type of social media and they lie within the community category, but share aspects of other sub-categories of social media, such as wikis, documents and content, discussion boards and forums, etc. Interestingly, regardless of which kind of social media was in question, online participation (i.e. contribution in the form of posting) was unequal in *all* online communities (Nielsen, 2006). Nielsen found that online participation approximately followed the 1% rule or principle of 90-9-1, where 90% were lurkers and only read, 9% were occasional or active contributors, and 1% were superusers or core members that contributed most of the content in the community. These member types will be described in more detail later on. Lave and Wenger (1991) originally described similar core and peripheral membership types that demonstrated these rates of participation in the community of practice (CoP) environment (e.g., Not online). More recently, Van Mierlo (2014) validated that the 1% rule was indeed consistent in four virtual communities for patient support. Nielsen coined this phenomenon as “participation inequality” and he believed it was important to reduce this effect, as it could be detrimental to the online community. He speculated that since core members of the online community were more active with posting online compared to the rest of the members, their voices became more dominant in comparison. The thoughts, ideas, and content of a small group in the online community (i.e. core members) would not necessarily be representative of the overall membership (i.e. lurkers) (Nielsen, 2006). Sandars (2007) deemed that when members’ needs weren’t adequately represented, those members may experience frustration and disinterest in the online community due to unmet expectations. This may further

fuel low rates of engagement and participation online, with the worst-case scenario resulting in the failure of the online community itself (Sandars, 2007; Tamjidyamcholo et al., 2014).

As mentioned before, there were three member types in virtual professional networks - core, active, and peripheral or lurker members. Core members or super-users, despite being the smallest group of members constituting about 1% (Nielsen, 2006), were the most active and they were characterized as those that developed and shared much of the knowledge (Borzillo et al., 2011), provided social leadership, and added vitality to the community (Wenger & Snyder, 2000). Active members accounted for around 9% of membership and they were occasional or regular contributors in online activities. Peripheral members, primarily referred to in literature as “lurkers”, were known as the “invisible audience” (Golder & Donath, 2004), “invisible participants” (Soroka & Rafaeli, 2006), or the “silent majority” (Nonnecke & Preece, 1999) in online communities. They formed the majority of the online membership. Unlike other more vocal members in the online community, lurkers were “invisible” for two main reasons. Since lurkers never or seldom posted their opinions or feedback online (Golder & Donath, 2004), and because their readership data (i.e. tracked via 'cookies') was usually not collected due to privacy concerns (Teltzrow & Kobsa, 2004), their activity patterns were thus undetectable. In essence, lurkers were invisible in the online context because of the lack of data on them.

There were many definitions of lurkers in the research, but in general, lurkers were characterized as individuals that read, but did not actively contribute online, such as by posting, commenting, or sharing knowledge (Cranefield, Zealand, Yoong, & Huff, 2011; Farzan et al., 2010; Nonnecke & Preece, 1999; Sun, Rau, & Ma, 2014). There were various other definitions of lurkers that were more specific and based on posting frequencies, such as: never posting (Nonnecke & Preece, 1999), posting infrequently (Golder & Donath, 2004), not posting over a defined period of time (e.g., three months) (Blair Nonnecke & Preece, 2000), or not posting

frequently as compared to the online communities' average (Lai & Chen, 2014). However, it was useful to mention that regardless of whether a member was a lurker, core member or otherwise, all members read more than posted online (Sun et al., 2014), and those that posted frequently also read frequently (Stewart & Abidi, 2012).

Lurkers were an important group to study simply due to their sheer size in online communities. The percentage of lurkers in an online community can vary widely and was dependent on the definition of lurker, the topic of the online community, and the platform used (i.e. email based discussion list, eCoP, virtual classroom), but they were often the largest type of member in online communities (Sun et al., 2014). Researchers have found that the lurker population on online communities can range from 0-99% of the total membership population, depending on the type of online community (Nonnecke & Preece, 2000). Early lurker research of suggested lurker populations are as large as 90% of a community (Katz, 1998; Blair Nonnecke, Preece, Andrews, & Voutour, 2004). It is possible this was due to the inability of users to easily contribute online as Web 2.0 technology had not been established yet. In online contexts relating to email based discussion lists (DLs), Nonnecke and Preece (2000) found that on average, there were lurker populations of up to 90%. They found that health support DLs had fewer lurkers (46%), as members felt compelled to post and discuss health issues, as compared to technical software DLs (82%), where more members lurked to find a solution to a technical problem. Interestingly, one study found that online platforms that were synchronous had no lurkers (i.e. MOO - Multi-user domain object oriented, and chat rooms), whereas asynchronous types of technologies had lurking rates of about 75% (Nonnecke et al., 2001). Synchronous environments enabled users to be visible to others upon logging on the system, which acted as an invitation to communicate, and made it difficult for individuals to lurk.

The value that lurkers provide to online communities has been controversial. Early literature used the term “lurker” in a negative and derogatory manner to label users as non-participating members of online communities. Lurkers have been described as “free-riding, non-contributing, resource taking” members (Kollock & Smith, 1996). Instead of posting or replying online to add value to the community, it was thought that lurkers only consumed knowledge from others, an action that would gradually erode the online community (Edelmann, 2013). As more research was conducted over time, the stance on lurkers became less negative, as it was found that most lurkers were not the selfish freeloaders as previously thought (Blair Nonnecke & Preece, 2000; Preece, Nonnecke, & Andrews, 2004). Instead, lurkers were considered valid participants of the online community, however big or small of a role they played. Although some researchers treated lurkers’ value as being limited or insignificant (Van Mierlo, 2014), many others considered them as a valuable resource (Edelmann, 2013; Nonnecke & Preece, 2000; Takahashi et al., 2003). Lurking “can be a positive and helpful behavior, a way of giving, receiving, providing/obtaining support, or learning” (Edelmann, 2013, p. 646). It was true that lurkers used the resources in the online community for their own benefit, but lurkers also contributed back to the online community by acting as weak or strong ties, which helped to create a more integrated network (Edelmann, 2013). Weak ties were casual relationships between individuals where communication was infrequent and often transactional, such as in professional acquaintances. These relationships were easier to form and are more numerous compared to strong ties (Wu, 2012). Weak ties were valuable in online communities due to their strength in numbers and variety. Members could reach out to their professional network of weak ties for crowdsourcing or help with questions. In contrast, strong ties were relationships that might have initially begun as a weak tie, but over time, transformed into deeper relationships with more frequent communication, such as with friendships. These relationships were longer lasting and

they also proved to be a source of assistance if called upon. Together, weak and strong ties in the online community served to connect members and positively impacted knowledge flow and uptake (Liao & Chou, 2012; Wu, 2012).

In online communities, lurking was the most prevalent form of online behaviour, and users spent countless hours participating this way. Researchers from one study even declared that lurking was normal, and rather, posting publicly should be considered an abnormal behaviour (Nonnecke & Preece, 2000). Cranefield et al. (2011) reported that the concept of a 'lurker' was too simplistic, and did not do justice for ones' offline character, as a lurker could be an 'online follower' and 'offline leader'. They found that although online members might not post online, these members had an extensive network of influence outside of the virtual community. They acted as knowledge brokers and shared the knowledge they gained in the online setting with others in their professional practice (Cranefield et al., 2011; Edelman, 2013; Takahashi et al., 2003). Takahashi et al. (2003) proposed new sub-categories of lurkers, called active and passive lurkers. While both types did not post online, there was a distinction in how they interacted with online content. After consuming content, active lurkers interacted with others either by directly communicating with those that posted (e.g. privately messaging core or active members) or by sharing gained knowledge. This group was further subdivided into 'active lurker as propagators' (e.g. shared knowledge with co-workers), and 'active lurker as practitioner (e.g. used knowledge in practice). Passive lurkers were individuals that purely read, without taking action with the data. This group can be split into 'active lurker candidates' and 'persistent lurkers' (e.g. read for self-education or enjoyment). Although passive lurkers read, but did not take any action afterwards, such as applying it in their practice, it was reported that this knowledge affected their thoughts (Takahashi et al., 2003).

2.2 The Value of Lurkers

Social capital is defined as, “the value the connection between the community members provide both to the individual and to the community as a whole” (Soroka, 2004, p.14). Soroka (2004) believed that social value of the online community correlated positively to the level of de-lurking, and online contributions. De-lurking was the conversion of the action of lurking to posting. For instance, if more lurkers started posting instead of lurking, then the value of the online community would increase due to greater content made available. Takahashi and colleagues (2003) had a difference stance on the value of the online community. They believed that in order to understand the social capital, it was insufficient to merely focus on members that made visible contributions (e.g. core members), or to hold the action of posting in a higher regard. Less visibly active members, such as lurkers, need to also be considered as they provided hidden value. Takahashi et al (2003) considered lurkers acted as more than just an audience base for the online community. Most notably, their value lay in their ability extend the social influence of the community to other online networks or offline settings, which would otherwise be secluded (Edelmann, 2013). Hence the goal should rather be to increase the number of active lurkers, which would create more connections between networks and people. The focus should not be on increasing posting counts or converting lurkers to posters, which may result in increased negative participation costs or inefficient usage of organizational resources. Sandars (2007) reported that too much lurking in an online community could potentially result in the failure of the online community. Although this might have been true, lurking was not necessarily detrimental to the online community provided if there was sufficient participation from active members (Nonnecke, Preece, & Andrews, 2004). Lurking was a negative behaviour in fledgling online communities if it was the predominant member behaviour and if there was a lack of participation to sustain interest. However, once the community reached a ‘critical mass’ of either

participants and/or level of participation, lurking was not a damaging action. Conversely, excessive posting from members could be viewed as an undesirable behaviour for large, active online communities, as it could lead to repeated information or questions, deviating discussions, or information overload (Nonnecke, Preece, & Andrews, 2004; Soroka, 2004). This could lead to members disengaging from the online community. In general however, current literature accepts and views lurking as a normal and justified activity that all members engaged in at some point in time (Edelmann, 2013; Farzan et al., 2010; Lave & Wenger, 1991; Nonnecke et al., 2001; Nonnecke & Preece, 2000; Soroka, 2004). There needs to be a balance of lurking and posting to sustain a healthy online community.

2.3 Reasons for Lurking

There were many documented rationales of why individuals lurked. Historically, Lave and Wenger (1991) claimed that new members of a community lurked because they were inexperienced, so they chose to observe and listened to more experienced members. This was termed 'legitimate peripheral participation', as the learner transitioned in a linear fashion from the periphery, observing first in order to determine the appropriate values, norms, behaviour, relationships and other aspects of the community, before entering the core (Richardson & Cooper, 2003). Lurking to gain information prior to being active was one primary reason mentioned by lurkers (Preece et al., 2004). The act of lurking was not only valid, but also necessary, as the insights gained allowed the learner to become a future core member (Borzillo et al., 2011). Researchers postulated that lurking was a temporary behaviour, as many individuals reported they lurked as they were still learning (Nonnecke, Andrews, & Preece, 2006). Lave and Wenger (2001) offered an alternative view on the behaviour of lurking. In their model based on communities of practice, individuals fluctuated between stages of active and passive

participation. Similar to verbal conversation, an individual may choose to be more active by speaking up during more relevant topics, but remain quiet and passively observe on the sidelines at other times. Researchers validated that this type of fluctuating behaviour occurred in online communities as well, as they found that all members lurked at various points in time (Nonnecke et al., 2006). The act of lurking can also be viewed as a situated activity, which means an individual may choose to remain indefinitely a lurker in one online community, yet may be quite active in posting online in another (Nonnecke & Preece, 1999; Nonnecke & Preece, 2000).

Nonnecke and Preece (1999) discovered that lurkers made the deliberate and methodical decision to lurk. Regardless of the reasons for this behaviour, lurking was based on a “complex set of actions, rationales and contexts” (Nonnecke, East & Preece, 2001, p. 6). Some researchers supported this claim and furthered that lurking should not be considered a passive behaviour, as it required various degrees of cognitive processing during browsing and selection of content, as well as social proficiency for dissemination of knowledge (Petrovčič & Petrič, 2014). Nonnecke, East and Preece (2001) conducted a study on the behaviour of lurking and discovered that for all participants, lurking was a means to satisfy their needs, though not necessarily all of their needs. Researchers found that some of the most mentioned needs that lurkers sought to satisfy were: personal, entertainment, information without interaction, connection to others and community and regularly delivered content. Personal needs such as satisfying curiosity and learning were important reasons for why members joined and lurked in the online community (Nonnecke et al., 2001). Similar to members who posted, participants that lurked were still able to develop a sense of connection to the online community, although not as frequently or to the same degree as posters (Nonnecke et al., 2006; Nonnecke, Preece, et al., 2004). This finding was reinforced in a study of an online community for patient support, when researchers found that lurkers were able to obtain benefits of support and empowerment (i.e. information, confidence, acceptance, self-

esteem, optimism and control) from reading posts, although not to the level as individuals who posted (Van Uden-Kraan, Drossaert, Taal, Seydel, & Van de Laar, 2008). Over 50% of lurkers stated their needs were satisfied from browsing, but their experience was neither as fulfilling nor as engaging as compared to posters (Nonnecke et al., 2006). Researchers developed a gratification model to explain how lurkers were able to satisfy their needs without posting (Nonnecke, Preece, et al., 2004). The premise of this model was that if the needs of lurkers were mostly met by the simple act of reading and they could obtain similar benefits of support as posters without going through the effort of posting, then it comes to reason why they would behave in this manner (Nonnecke, Andrews, Preece, and Voutour, 2004; Nonnecke et al., 2006). However, although posters and lurkers both went online to seek answers or information, members that posted online rated their satisfaction with the online community as being met or exceeded (Nonnecke, Preece, et al., 2004). This contrasted to the levels of satisfaction from lurkers, which were either neutral or negative, again confirmed by later research (Nonnecke et al., 2006). It is unknown whether the lurking behaviour occurred first, which caused dissatisfaction, or whether issues with online community or other members caused dissatisfaction, which subsequently promoted the lurking behaviour. Researchers believed that the latter scenario might be more likely, as 13% of participants in their study stated they had no intention of lurking when joining the online community (Nonnecke et al., 2006).

The tendency for posting or lurking depended on the individual factors, such as personality, self-efficacy, goals, desires, and needs (Sun et al., 2014). Members that posted online had more extroverted personalities compared to lurkers and they sought to meet their needs for social interaction by exchanging advice or stories online (Nonnecke, Preece, et al., 2004). Posters were intrinsically more motivated to be engaged with the online community and they wanted to build professional and personal relationships (Nonnecke et al., 2006; Sun et al.,

2014). Sun and colleagues (2014) discussed how self-efficacy was another individual factor that affect one's desire to post. Three types of self-efficacy existed: technological, information, and connective. Technological self-efficacy translated to how comfortable one was with using the online system to post. Information efficacy was how one perceives his/her ability to post valuable content. Connective efficacy is the third type of efficacy, and this is one's belief that others will receive the online posting positively. Individuals that rank high on the various types of efficacies will be more likely to post online and the opposite is true for the lurking behaviour. For example, individuals that are more likely to lurk may not be technologically confident, do not believe they have valuable contributions, or may think others will criticize their online posting.

Lurkers had more introverted personalities, were shy about posting, thought they had nothing to contribute, avoided the risk of being judged by others (e.g., some witnessed hostility, some spoke English as a second language), or refrained from publicly posting due to privacy and anonymity concerns (Nonnecke & Preece, 2001). However, researchers cautioned labeling lurkers as introverts, as all individuals lurked at some point in time (Nonnecke et al., 2006). One study found that lurkers were more influenced by extrinsic factors, such as reciprocity (Sun et al., 2014). Lurkers were more interested in searching for information and would likely not post unless they were able to obtain something positive in return, such as positive comments. In another study investigating what lurkers and online posters thought of each other, posters were respectful, tolerant and most did not feel any resentment towards lurkers in online communities (Nonnecke, Preece, et al., 2004). Rather surprisingly, some lurkers felt resentment and less respect towards posters, as they posted too much and dominated the voice of the community. A lack of trust was discovered to be another contributor as to why individuals lurked and the success of online communities depended on countering this (Gannon-leary & Kingdom, 2007;

Zhao, Lu, Wang, Chau, & Zhang, 2012). Researchers discovered that if members in an online community had a higher level of trust, they would likely have a greater sense of belonging, less concerns with issues regarding privacy, and more willing to share. Although relationships can begin online, trust was usually forged and deepened in face-to face communication (Ikioda et al., 2013). Trust was difficult to establish in online communities, as these spaces were less personal, members often had little to no prior connections, and online communication was more limiting compared to in-person conversations. These factors resulted in a lowered social presence, sense of community and interaction rates. Other major reasons cited as contributors to lurking were: technical or usability issues, poor fit with the community (i.e. slow response times, uninteresting group), amount (i.e. too many or too few) and quality of posts, lack of time due to work constraints, and too long of a response time (Nonnecke and Preece, 2000; Nonnecke et al., 2001; Nonnecke and Preece, 2000; Preece et al., 2004; Sun et al., 2014). Lurkers also did not know the value of their involvement to the online community. Many felt that they did not need to post, as reading was enough and others felt that there was no requirement to post or had not motivation to post. Some lurkers perceived themselves as helping to control the issue of information overload in online communities by not posting.

Lurking is a normal behaviour that all individuals do at some point in time, so it is not a “deviant behaviour that needs correction” (Nonnecke et al., 2006, p.19). Rather than placing emphasis on de-lurking, it is advisable instead for the online community to focus on supporting both posters and lurkers alike with improved tools and interventions. For example, posters should be catered to with an easy to use interface that reduces the workflow required for posting online. Whereas lurkers’ information seeking needs should be supported with uncomplicated, yet advanced search tools, and utilizing appropriate naming conventions and keywords for messages and discussion threads that allow for retrospective querying (Nonnecke & Preece, 1999). In

general though, there are many methods available to improve online community experiences for all members. A need for regular moderation and leadership to keep members engaged was a recurring theme in the literature (Andrew, Ferguson, Wilkie, Corcoran, & Simpson, 2009; Borzillo et al., 2011; Butson, Hendrick, Kidd, Brannstrom, & Hedberg, 2012; Nagy et al., 2006; Probst & Borzillo, 2008). Moderators, facilitators, core members, sponsors, and leaders are critical individuals that are responsible for contributing resource allocation, timely content, credibility, moderation, and member integration. Borzillo et al. (2008) argued that leaders may even need to commit 20-50% of their work time to actively promote and collaborate with members. Without the support from these leaders, the vitality and sustainability of not only the eCoPs, but also of the organization, remains in question. Researchers advised that moderators should cater to new members as the initial period of membership is a time where lurking occurs more frequently (Preece et al., 2004). For instance, investigators found that rates of lurking were drastically higher in email-based discussion lists that did not reply to new member posts (Nonnecke & Preece, 2000). Moderators could be hospitable to new members by ensuring new posts are responded to and using private messaging to personally welcome them, as well as to answer questions and offer suggestions for activities. The implementation of mentoring partnerships and small group activities could gradually help to introduce lurkers to the online community and its norms (Nonnecke et al., 2006; Preece et al., 2004). Stronger moderation by means of frequent monitoring and enforcement of well-defined guidelines on appropriate online etiquette should be implemented to prevent offensive comments or language and to keep conversations focused and appropriate. Usability and design of the website could be improved to accommodate a variety of information seeking behaviours. Educational interventions in the form of clear tutorials should be created and easily accessible for new members so they can learn how to login, post, initiate discussions, or update their profile. Ensuring up to date profiles was

important to lurkers who wanted to connect with other members (Nonnecke & Preece, 2001). To encourage posting, a weekly list could be uploaded on the social media website to highlight the top contributors (Preece et al., 2004). A rating system could be implemented that easily allows users to rate the quality of posts. Not only would this lower the obstacles for participation and the time spent reading (e.g., information overload), but this system also has the benefit of identifying more experienced members, which is important for satisfying participant's informational needs (Nonnecke et al., 2001). To encourage trust and relationship building amongst members, regular face-to-face structured and un-structured off-line activities should be organized, such as meetings or conferences (Hanlis, Curley, & Abbass, 2009). For individuals concerned about maintaining privacy and anonymity, a login name and digital persona different from his/her real identity could be used (Preece et al., 2004). Some individuals may find solace if the online community is password-protected, as this usually implies that the content is private, and inaccessible by the public (Stevens, O'Donnell, & Williams, 2015). However, potential members should take responsibility and read the online community's policy regarding the protection of data prior to registration. Finally, promoting sharing in the online community as part of the shared vision is important for encouraging lurkers to be more engaged (Liao & Chou, 2012).

2.4 Health Care Professionals as Lurkers

A thorough literature search did not reveal much information on health care professionals as lurkers, and most of the available research is about their general online participation in eCoPs. Five articles investigated the knowledge sharing practices of nurses in online communities and briefly discussed lurker participation. Lurking was acknowledged to be a common phenomenon in online communities for nurses (Scott, Brooks, Quick, Macintyre, & Rospopa, 2004; Wharrad, Cook, & Poussa, 2005), and one study found that 71% of nursing participants lurked (Ikioda et

al., 2013), while another study highlighted the discrepancy of content generated between core and peripheral members (Stewart & Abidi, 2012). Lurking was viewed as a valuable form of participation for nurses as it allowed for vicarious learning through the experiences of advanced practice nurses (Noriko & Khe, 2007) and from other nurses' opinions, as well as engagement to the online community (Scott et al., 2004). However, participants from one study involving post-registration nursing students in an online forum expressed discontent with lurkers, as they felt their work or opinions were taken without reciprocation (Wharrad et al., 2005). The definition of lurking as not posting was considered unjust, as lurkers could be participating and contributing in the online community via other actions, such as following others' activities, voting, or updating member profiles. Alternative methods to measure non-posting contributions need to be developed (Ikioda et al., 2013).

Regarding general online participation of health care professionals, it was found that eCoPs are often not successful in the long-term due to low interaction rates and difficulty of establishing trust (Ikioda et al., 2013). Developing trust for health care professionals online is difficult, as members have to cross professions, organizations, and geographic distances. This issue is compounded as members usually have little to no prior connections (Hanlis et al., 2009) and there are fewer social cues in an online setting (Ikioda et al., 2013). Low participation in eCoPs from the nursing profession has been attributed to the preference of the accustomed in-person environment over online communication. Some of the major reasons that have been stated by other health care professionals (e.g., physicians, pharmacists, social workers) as barriers for online participation were: accessibility and technical issues, time, and privacy (Barnett, Jones, Bennett, Iverson, & Bonney, 2013; Brooks & Scott, 2006b). Rural nurses and physicians have been cited as having connection or accessibility issues to video conferencing and content, due to the limitations of technology and security restrictions of the organization (Curran, Murphy,

Abidi, Sinclair, & McGrath, 2009; Newman, Martin, McGarry, & Cashin, 2009). Insufficient time, correlated with workload and lack of organizational support for eCoP use was a recurring theme that emerged in the literature, regardless of workplace setting, (i.e. Cardiac, emergency, medicine, or rural) or professional designation (Brooks & Scott, 2006b; Butson et al., 2012; Cook-Craig & Sabah, 2009). The issues with online communication, combined with how nurses and health care professionals are conventionally more familiar with working in a face to face environment, could also contribute to the issue of lurking (Andrew et al., 2009). Butson and colleagues (2012) highlighted that the same issues of workload and scheduling difficulties for attending research meetings in reality also apply to eCoPs to a certain extent.

Not all views were favorable towards utilizing eCoPs as a valuable learning resource. One study uncovered negative attitudes and cultural barriers amongst nurses and midwives (Brooks & Scott, 2006). Some of the senior nurses viewed eCoP participation and engagement with other nurses and disciplines as unnecessary and of limited value, as these were not nursing tasks. The nursing profession prioritized tasks focused on direct care, which had shifted the attention away from improving the quality of work or contributing their opinions to reviewing higher-level policy changes. Cook-Craig and Sabbah (2009) stressed the importance of sharing knowledge to strengthen the eCoP membership, instead of obtaining knowledge, which lurkers are notorious for doing. They discovered that eCoPs had the potential for the development of virtual professional relationships between members called weak ties. They believe that the strengthening of weak ties, in conjunction with improving membership reciprocity and trust, are the keys for cultivating knowledge sharing. Interestingly, Cook and Sabbah (2009) found that some members were unsure as to whether to use the information gained from their weak ties (i.e. experts in the area of concern), or continue with the status quo of guidance under their regular superior. They concluded that only a small number of participants take advantage of the

expertise from weak ties, perhaps because of this ambiguity. Greater effort should be devoted to building and supporting these types of relationships amongst members (Cook-Craig & Sabbah, 2009).

Although lurking was perceived to be a natural behaviour for health care professionals online, recommendations were made to decrease the amount of lurking, such as by increasing total membership via new members (Ikioda et al., 2013), encouraging and strengthening relationships between posters and lurkers (Stewart & Abidi, 2012), stronger moderation (Ikioda et al., 2013; Wharrad et al., 2005), development of skills and confidence in computer literacy (Wharrad et al., 2005), scheduling offline events/meetings, and clarification of shared values and goals (Ikioda et al., 2013). To mitigate the issue of time preventing participation in eCoPs, there should be increased organizational support, in the establishment of an intuitive website, and provision of substantial benefits to warrant time spent (Butson et al., 2012). Organizational support could translate to policy changes to allow for more time and resources for online participation, but the organization would need to first believe in the eCoP's value to justify resource allocation (Cook-Craig & Sabah, 2009). Knowledge obtained from informal learning, such as from eCoPs, is often treated by the organization as "invisible work" and not valued, seen rather as a requirement on the practitioner for doing their job correctly (Andrew, Tolson, & Ferguson, 2008). Strong leadership is required to motivate and guide health care professionals to accept the value and mandate of the online community (Hanlis et al., 2009). The technology implemented in the online community should be resource rich, and user-friendly to support the information-seeking behaviours of the health care professional.

2.5 Gap in the Knowledge

Previous research conducted on InspireNet has been unsuccessful in obtaining participation from the lurker population (*InspireNet Final Report*, 2015). It was vital to carry out the research study as outlined in this thesis as there is currently a gap in knowledge of the lurker population on InspireNet. As well, there is an inability to accurately track the various ways members participate on InspireNet. For example, InspireNet's webinars sometimes host groups of participants, but since only one registered member is required to connect to join the webinar, there is no mechanism for accurately measuring attendance and participation from all participants. In addition, InspireNet members might be networking with other members in undetectable ways. Cranefield and colleagues (2011) claim that lurkers may be using a variety of 'back-channels' for communicating and interacting with other members. For instance, InspireNet members may prefer private communication methods with other members via email (mandatory data upon registration), or LinkedIn® (optional in member profile) due to potential privacy concerns with posting online (Soroka, 2004; Sun et al., 2014).

Current reported participation rates on InspireNet maybe falsely represented, as they do not capture the various ways that lurkers may be involved with InspireNet. Cranefield and colleagues (2011) argue that lurkers may be online followers and offline leaders. It is possible that offline, InspireNet members are acting as a propagator (e.g., sharing with others), or as a practitioner of knowledge gained from lurking (Takahashi et al., 2003). They might be promoting the InspireNet network by asking colleagues or friends to join, or they might be connecting with another professional through the database. This study was important as it uncovered the spectrum of participation from this unstudied InspireNet population, and lead to new ways to improve this resource for current and future members. The feedback from this study was invaluable for the

website content creators, researchers, facilitators, leaders and administrators, as they can now better cater to membership interests and needs.

Chapter 3 Method

An exploratory, qualitative study has been undertaken to answer the three research questions as proposed in Chapter 1:

1. How do lurkers use and/or interact with InspireNet?
2. What reasons and/or barriers do lurkers have for not posting online?
3. Are lurkers content with remaining a lurker?

In-depth semi-structured interviews have been conducted with 15 individuals who agreed to participate in the study. Since this is an exploratory study of the relatively unstudied phenomenon of lurking amongst health care professionals, conducting semi-structured interviews was more suitable than surveys in improving our understanding as they allow for more detailed and open-ended responses. Although surveys and focus groups would have been appropriate methods for data collection, they have already been used unsuccessfully in the past for eliciting participation from InspireNet's suspected large lurker population (*InspireNet Final Report*, 2015). As a result, there remained a paucity of data from the InspireNet lurker population, which supported the reasons for why research was conducted on this population. Unlike interviews, surveys are unable to capture the level of detail required to truly understand the experience of lurkers. Although focus groups have the benefit of leveraging group dynamics to generate rich dialogues between participants, they would not be ideal to use for specialized populations (e.g., lurkers) as recruitment is more time consuming and more difficult (Morgan, 1997). Semi-structured interviews were used in this research study, with topic guide questions derived from existing research on lurkers (Appendix B).

3.1 Theoretical Framework

InspireNet was a professional social network utilizing Web 2.0 and other social media technologies (Frisch et al., 2014). As such, a theoretical framework with a focus on the social perspective and connections between individuals in the network was employed for conducting this research. Social Network theory (SNT) was an appropriate theoretical framework to use because it emphasized a study of the patterns of interactions and relationships between individuals, groups, or organizations (Ganley & Lampe, 2009). In SNT, the relational aspects of an individual's social network are of greater importance on influencing one's beliefs or behaviours, more than the personal attributes of the individual (Theorieënoverzicht, 2009). Social network analysis is a set of techniques used to identify and measure the various forces acting on the individual or group. For instance, a study utilizing SNT may be concerned with uncovering feelings between individuals, or the various communication means used to exchange information (Theorieënoverzicht, 2009).

SNT was instrumental to informing the approach and interpretation of the findings of this research study because it fits the research purpose and research questions. The research questions aimed to uncover lurkers' experiences on InspireNet, specifically relating to their current activities with the organization and interactions with other members, rationales for lurking, and intentions for remaining lurkers. Were lurkers superficially connected to other members through their content via one-way information flow (e.g., reading the blog), or were there deeper bi-directional connections between members (e.g., weak or strong ties sustained through email, phone calls)? If these connections existed, why did lurkers choose to participate with the content/other members in these private ways? Were there factors hindering their relationships with others or with the content? Did lurkers intend on continuing to participate in this manner? These questions branch off from the primary three questions that this study aims to address.

Although the uncovered data may be rich, a frame of reference is needed to meaningfully understand how it fits within the context of the larger InspireNet network. The data and results obtained from studying the InspireNet lurker population hopefully sheds some light on the level of connectedness, engagement, and knowledge consumption/transfer of the membership, thus contributing to a more in depth understanding of the InspireNet network as a whole.

3.1.1 Social Network Diagrams

Figure 3.1 (Krebs, 2007) shows an example of a Social Network diagram, typical for representing actors or groups (i.e. InspireNet members) connected to one another by relationships indicated by the connected lines. Basic relationships begin with two actors or individuals and involve one-way information flow (Kadushin, 2004). An example of this is if an individual reads an article written by another (e.g., newspaper). More complex relationships allow for bi-directional information flow, such as if two individuals exchanged information via email communication. Relationships could get progressively more intricate as they involve more actors and more paths of information flow. For instance, electronic newsletters have content that is shared from one person or organization to multiple individuals subscribed to this service. These members may in turn be sharing this information with their co-workers by other means. Another example of complex multi-directional information flow is the discussion group or forum, such as those used in the Social Media Twitter® feeds. These digital environments have multiple people interacting with each other simultaneously and in real-time.

In Fig 3.1, the red nodes in the center of the circular mass represent the core members or super users of an online organization (i.e. InspireNet), and these are the individuals that have the highest levels of online participation. They usually rank high on knowledge generation and sharing, as well as the number of connections to others. Their connections to others are often

publicly known due to online posting activity or by other traceable actions (i.e. Hosting webinars). The green nodes have some connections with one another and are considered active members or regular contributors that post online. The disconnected blue nodes in the outermost circle are the nodes of interest as they represent the lurker population of organizations. Currently InspireNet has no information about the lurker population, except that individuals choose to remain a member in the InspireNet network.

By utilizing SNT to frame and interpret findings in this research, the researcher will hopefully be able to uncover information about relationships to reveal if and how lurkers are connected to other InspireNet members (i.e. core members, active members, or other lurkers). Results will hopefully further the understanding of the extent of health professionals' social networks, as lurkers utilize them. The research study will hopefully obtain more data about the types and strength of member relationships (e.g., weak or strong ties), modes of communication, types and modes of knowledge consumption, and existence of knowledge transfer in practice or with others. Additional data on why lurkers choose to lurk may reveal issues that hinder online posting and relationship building indirectly. Finally, understanding lurkers intent regarding whether they are content with being a lurker may determine whether organizational effort would need to be devoted to reducing lurking. Results will help to bridge the gap in knowledge for this largely unknown lurker population in the InspireNet network.

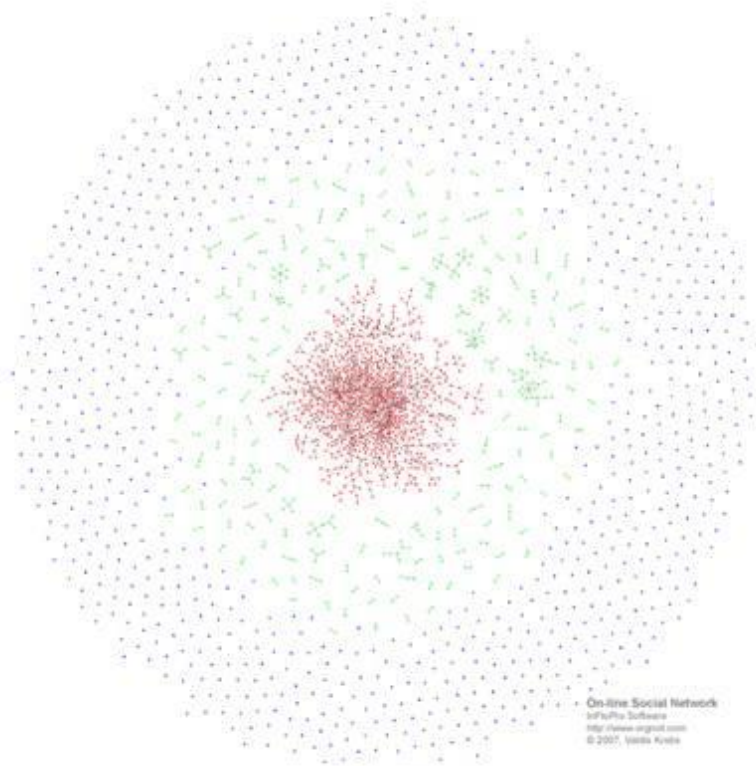


Figure 3.1 Social Media Network Nodes (Krebs, 2007)

3.2 Study Sample

The study sample was obtained from a database of registered InspireNet members from all health care related disciplines and roles (N=3960). InspireNet membership by affiliation consisted of the following groups: 60% from British Columbia (BC) Health Authorities, 25% BC Educational institutions, and 15% from other institutions (i.e. NGO, Private care, government, outside of BC) (*InspireNet Final Report*, 2015). The target sample size was ten participants, which is based on previously conducted research that explored the behaviour of lurking (Nonnecke & Preece, 1999; Takahashi et al., 2003).

3.2.1 Inclusion Criteria

The inclusion criteria included InspireNet members that **have not** posted on the InspireNet website (i.e. Comments, blog, discussion, wiki) in the last six months or more. New

members with at least one month of membership were also eligible. The timeline for not posting was broad enough to ensure that an adequate sample size was obtained from this hard to engage lurker population. This duration fits with the definition of a lurker as described in the literature review section. As long as members had not posted online within the last six months, they were eligible to participate in this research study. It did not matter whether or not lurkers had engaged with any InspireNet activities (e.g., newsletters, social media, webinars, database). InspireNet members that posted prior to the last six months were still eligible for this research study, as lurking could be a temporary and transient behaviour that members engaged in. New members that had at least 1 month membership and had posted within this timeframe were also eligible to participate in this research study, as it has been found that beginners lurked in order to learn about the online community prior to their participation (Richardson & Cooper, 2003). It was assumed that all members were able to comprehend English (even though it might not their primary language), as they were able to navigate to the website and register for InspireNet membership. This was a fair assumption, as health care professionals would have to meet English language competencies in order to work as a health care professional.

3.2.2 Exclusion criteria:

InspireNet members that **have** posted content in the last six months were excluded from this research study. Members in leadership roles were likely excluded, such as network managers, group action leaders, or co-leaders, as the majority of members in these groups were responsible and much of their communication and engagement with members took place using InspireNet.

3.3 Recruitment:

A non-probability convenience sample of study participants was obtained. A small incentive in the form of an honorarium of a \$25 gift card was provided to participants, from funding granted by InspireNet. The amount of this incentive was small and was not enough to cause any undue inducement or affect the voluntariness of participants taking part in the study in any way. Offering an incentive was ideal, as the lurker population has been stated in the literature as difficult to engage. They have been cited as being too busy for posting online (Curran et al., 2009), so by the same token, they might not have been able to find time to participate in the research study. As well, lurkers operate on and value reciprocity (Sun et al., 2014), so the offer of an incentive should have increased the participation rate.

The researcher recruited potential participants by various means, as described below: InspireNet website blog, emailed newsletter (mandatory subscription upon registration), Facebook®, and Twitter® (Appendix B).

- 1. InspireNet website blog:** The full details of the study, including the investigator's contact information, consent to participate and honorarium for participation, were posted on the blog section of InspireNet. All members were able to view this information. Members could have navigated to the blog voluntarily or if they had followed the link from the invitation to participate sent via electronic communication (i.e. newsletter, InspireNet social media).
- 2. Emailed newsletter:** The invitation to participate was included in the emailed newsletter, which was sent to all registered InspireNet members. It did not have the full details of the study, but contained a summary of the study, honorarium and linked to the InspireNet blog containing the details of the study. All members received the

newsletter in their email account as per their selected subscription frequency (i.e. immediately, every hour, twice a day, daily, or weekly).

- 3. Facebook® or Twitter®:** These forms of social media were used to advertise for the study. Online postings on these websites were kept short to comply with the character count (i.e. Twitter® has a 140 character restriction) and only a short description of the study and honorarium was posted. The posts were linked to the InspireNet blog, which contained the full details of the study.

Potential participants were able to view the invitation to the research study in their emailed newsletter, as well as through any of InspireNet's' social media accounts they had subscribed to. However, some members might have had outdated or incorrect emails, or did not follow any of InspireNet Facebook® or Twitter® accounts. In these circumstances, these members would have likely been unable to receive communication about the study, unless they checked the InspireNet blog or heard about it from a colleague or friend who used InspireNet.

Since the primary researcher did not know how lurkers consumed the information, using multiple means of increasing the visibility of the study was ideal, as it likely would have improved the success of obtaining participants from this group, which has historically had low participation (Nonnecke et al., 2001). For instance, it was unknown whether lurkers checked the InspireNet blog or the emailed newsletter regularly, but there was a possibility they would have stayed updated with social media (i.e. Facebook® and Twitter®). As well, repeated exposure to seeing invitations to participate in the study from multiple avenues might have led to the lurker participation.

For the invitations to participate, it was critical to convey that being a lurker or lurking is not at all negative. Research has found that in general, individuals associated a negative

connotation with the term lurker (Edelmann, 2013; Nonnecke & Preece, 2000), so this might have deterred potential qualified participants from self-identifying in the study. The term lurker was not used in the invitation to participate, and this population was described instead as 'peripheral members'. The study was described as a call for assistance to investigate the various ways that InspireNet was being utilized from this population, with the goal of determining if membership needs were met and if services could be improved. When lurkers saw the details of the study and self-identified for eligibility to participate via the inclusion/exclusion criterion, they contacted the researcher. The researcher validated the potential participant's eligibility and sent out a consent form for review and signature. After the consent form was returned, an interview time was scheduled. The invitations sent to promote the study are listed in Appendix B.

3.4 Sample Setting

The sample of participants was obtained from InspireNet, a virtual network for health care professionals (HCPs). This organization was based in British Columbia but allowed membership across Canada. During its existence from 2009-2015, the goal was to increase HCPs capacity for health services research (Frisch et al., 2014). This was achieved through the implementation of an online portal for members that featured various action teams, or eCoPs, pertaining to specialty topics under the umbrella of health care research. Each eCoP had its own members, forums, wikis, document repository, and webinars centered on that specialty topic. Aside from the eCoPs, the main InspireNet website featured a blog with articles written by core members, and a member's only section that featured a membership database that users can use to connect with others. This database contained member information such as profile picture, contact

information, area of work, and areas of interest or specialization. A screenshot of the InspireNet homepage is below.



Figure 3.2 InspireNet Homepage

3.5 Limitations

Since participants were obtained via non-probability convenience sampling, there was a risk of selection bias. The study was only able to recruit members that chose to participate in the study, and excluded members that did not want to participate, even though they might have met the inclusion criteria. For instance, these individuals might have been inactive members, missed the invitation to participate (e.g. did not check email or had an inactive email) or decided not to participate for a variety of reasons. However, as the rate of participation of this population has traditionally been low, this was a limitation of the study.

3.6 Data Collection

Demographic data pertinent to the proposed research study were collected, such as: gender, age, location of residence (i.e. City and province), work status (e.g., full-time, part-time, casual, student), highest level of education, occupation, category of work (i.e. clinical, education, research, administration), institution type (i.e. BC health authority, BC educational institution, NGO, Private care, government, outside of BC), and length of InspireNet membership (see appendix A for this list of questions). Additional information that might have influenced the behaviour of lurking (e.g., technology literacy) was collected via the interview questions. See Appendix A for the semi structured interview questions.

15 virtual interviews were conducted with the participants. One was recorded with 2 way video, and the rest with sound only, although participants were able to view the researcher through video. Data were collected via semi-structured one to one interviews, which were conducted virtually using InspireNet's web meeting platform 'WebEx'. The option of a telephone interview was offered for those that don't have access to a computer. Virtual or telephone interviews are ideal for this population, as it negated having to meet in-person, and lowered the barriers to participation. The participant was able to choose a convenient time and environment for the interview to take place, which removed the geographic distance and further lowered participation barriers. InspireNet served members that reside in British Columbia and across Canada, including rural regions. Due to these geographic distances, in-person meetings would not be conducive for this population. All participants preferred virtual interviews over telephone interviews, as the WebEx platform had the added benefit of recording and playing back the interviews at a later time. Previous research aimed to target ten participants with semi-structured interviews to understand the behaviour of lurking (Nonnecke & Preece, 1999; Takahashi et al., 2003). Mirroring previous research, the aim of this study was to conduct ten

interviews, each about 40 minutes -1 hour in length. A topic guide containing broad guiding questions and probes was used to direct the interviews (see Appendix B). Logs and field notes were completed to ensure high quality data and record keeping for auditability (LoBiondo-Wood, G. Haber, 2010). Ideally, the hope was for interviews to be conducted via video communication, so that the non-verbal cues of both the participant and researcher can be seen to enable a richer discussion. However, participants might have been uncomfortable with enabling video recording as only one participant consented to being recorded via video. Participants were asked what type of format they preferred prior to scheduling or right before the interview and ultimately had control of whether to allow video or just audio.

3.7 Data Analysis

Data from the recorded interviews were professionally transcribed. The investigator performed a reliability check on the transcription to ensure quality and consistent interpretations. Demographic data were coded into descriptor fields, with corresponding values coded based on the responses from the participants, which allowed for comprehensive and efficient data analysis. Statistics and visual graphs were generated from relevant coded demographic data to identify trends that were included in the findings. In addition, demographic data were also compared to determine if there were any commonalities that could be derived between items such as age, sex, role, computer literacy and proficiency etc. Qualitative analysis software (i.e. NVIVO) was used to ease the process of organizing and managing the data.

Content analysis was used as the approach to analyze the data in this qualitative study. More specifically, the researcher used the conventional type of content analysis and described by Hsieh and Shannon (2005). According to these authors, this approach was appropriate because the aim of the study was to gain a richer understanding of this largely unknown population via an

exploratory approach with interviews and open-ended questions. As per the conventional type of content analysis, the initial coding scheme was not developed prior to data analysis. The goal was not to quantify keywords and count how many times these terms were used, but rather, the aim was to search for direct and inferred meaning. This process is described in more detail below. The outcome of using conventional content analysis in this study was not to create a theory (Hsieh & Shannon, 2005), but rather, to create an understanding of the concept 'lurker'. SNT was used as the theoretical framework of the study to guide the type of questions asked in the interviews and was used to focus the research study on the relational and social aspects between individuals.

The researcher began data analysis by reading all transcribed interviews numerous times to gain an understanding of the experience of lurking as whole. The investigator then read each transcription one word at a time and focused on words that described the main ideas. Each sentence was reviewed and keywords were then extracted to form the initial nodes, or themes. This process was completed for four transcripts and the PI used these nodes to complete coding the remaining transcripts with these nodes and creating new nodes when needed. After this was done for each of the interviews, nodes that were common were grouped together and modified into more inclusive labels that better described groups of similar ideas. Descriptions were created for each of the nodes to provide context and aide understanding. Further in the coding process, the nodes were organized into categories according to their relationships to one another. Only nodes that presented interesting findings, new knowledge, or common themes were kept, as per the conventional content analysis methodology (Hsieh and Shannon, 2005). Finally, categories were combined together to form a small number of clusters, which were the highest level in the hierarchy that represented the overarching meta-themes of the study. The researcher kept an

updated journal reflecting the process of organization, remarks and analyses of the transcriptions as he progressed.

3.8 Ethical Considerations

Ethics approval had been obtained from the University of Victoria ethics committee before the study was conducted. Please refer to Appendix D for the Certificate of Approval. Prior to consenting to participate in the study, potential participants were informed (i.e. verbally and in writing) about the purpose of the study, the study procedures, confidentiality and privacy implications, the study's risks and benefits, voluntary participation, and their right to refuse or withdraw from the study at any time (LoBiondo-Wood & Haber, 2010). Ensuring confidentiality and privacy were high priorities, as demographic information like occupation and work locations may be recorded. Participants were required to provide informed consent prior to participation. The consent was included in direct email communication, and sent to participants prior to scheduling interviews. The consent forms were emailed back to the researcher. For each participant, the researcher ensured that he/she had completed and returned the consent forms prior to commencing the interviews. The study was explained again to the participant prior to the start of the interviews. Draft communications to InspireNet members are listed in Appendix B.

Interviews were recorded in the proprietary WebEx format, and initially stored on the servers in California, United States, as WebEx is owned by Cisco, an American company. As such, these data may be at risk for being accessed by the government of the United States, as outlined by the US Patriot Act. To mitigate this issue, as soon as interviews were completed, the recordings were converted in a non-proprietary format (i.e. .mp4) and subsequently deleted from the WebEx platform. The new files were then transferred to the InspireNet servers in Canada, and stored in the eCoP Team called "Tom-Ying-Thesis" on InspireNet, accessible only by the

primary researcher and InspireNet network manager. The researcher had a strong password for his InspireNet account as well as on his desktop computer to ensure confidentiality and security. The interview files were also downloaded to an encrypted memory stick, in addition to being archived on Canadian servers to comply with the Freedom of Information and Protection of Privacy Act (FIPPA). The data will not be used for any future research by other researchers. Electronic data and paper documents from this study will be disposed of within 5 years from the date they were created. Electronic data will be deleted from the servers, and paper transcripts or documents will be shredded and disposed of. The informed consent included a section with the following disclaimer to notify participants about the potential risks of data being stored in the United States:

“Please be advised that this research study includes data storage in the U.S.A. As such, there is a possibility that information about you that is gathered for this research study may be accessed without your knowledge or consent by the U.S. government in compliance with the U.S. Patriot Act. ”

Audio was transcribed using pseudonyms as identifiers, such as “person 1, person 2, etc.” In the unlikely scenario that the individual was recognizable from their transcript, these transcripts will not be published. Video will not be shared or used for future research studies. Audio/video recordings and coded data will be stored in a computer with strong password access and files will be password protected. Recorded interviews will be stored on Canadian servers that host InspireNet to maintain compliance with FIPPA. Tom Ying, the primary contact and researcher of this study, is also a registered nurse and Master’s student, and he has signed a

confidentiality agreement and will not disclose any personal identifying information of participants to anyone.

Chapter 4 Presentation and Discussion of the Findings

4.1 Introduction

This section reports the findings of the research study, beginning with demographic data from the participants and followed by the four overarching themes and concepts that arose from the research. Participant statements have been quoted to give support.

4.2 The Participants

The entire database of InspireNet members (3960+) were informed about the study. It was unclear exactly how many of these members were lurkers as defined in this study, but the majority of the membership would likely have qualified. Twenty-eight people responded and stated they were interested in participating. This response rate of approximately 0.7% was low, although not unexpected, as lurkers have historically had low participation rates. All of these people were confirmed to meet the eligibility criteria of the study. Of the 28 interested individuals, fifteen participants were successfully recruited and completed the interview process. The remaining thirteen individuals did not respond or schedule the interview for reasons unknown to the primary investigator. The participant data, including the demographic data, were collected from Jan 2016 to February 2016, as presented in Table 4.1 below.

Participant Demographics	Frequency (%), N=15
Gender	
Male	2(13%)
Female	13(87%)
Age	
<40	3(20%)
40-50	8(53%)
>50	4(27%)
Location of Residence	
City of Vancouver	9(60%)
Metro Vancouver (Excluding City of Vancouver)	3(20%)

British Columbia (Excluding Metro Vancouver)	3(20%)
Work Status	
Full-Time	10(67%)
Part-Time and Student	3(20%)
Full-Time Student	1(7%)
Unemployed	1(7%)
Highest Level of Education	
Diploma	1(7%)
Undergraduate Degree	4(27%)
Postgraduate Degree	10(67%)
Professional Background	
Registered Dietician	1(7%)
Physical Therapist	1(7%)
Health Care Administration	1(7%)
Occupational Therapist	2(13%)
Registered Nurse	10(67%)
Category of Work	
Administration	1(7%)
Clinical	2(13%)
Education	2(13%)
Research	2(13%)
2 Categories of Work	5(33%)
3+ Categories of Work	3(20%)
Institution Type	
BC Health Authority	9(60%)
University	2(13%)
BC Health Authority and University	4(27%)
Length of InspireNet Membership	
<2 years	1(7%)
2-3 years	6(40%)
4+ years	8(53%)
Computer Proficiency	
Basic	2(13%)
Intermediate	8(53%)
Advanced	5(33%)

Table 4.1 Demographic Information

All of participants resided in British Columbia, with the majority (N=9) located in the City of Vancouver. Almost all participants were female (N=13) and more than half were between the ages of 40-50 (N=8). Most participants worked full-time (N=10), were Nurses (N=10) and worked in a BC Health Authority (N=9). It is important to note that more than half of

participants were long time InspireNet members (N=8) and almost all participants considered their computer proficiency at the intermediate level or higher (N=13).

4.3 Findings

As per the process as described in section 3.6, codes were developed using content analysis. Each transcribed interview was initially read one word at a time and then keywords were extracted to form nodes, or themes. Nodes, or themes, that represented similar ideas were grouped together when possible. These nodes were further consolidated under meta-themes in a hierarchical fashion, which organized themes based on their relationship to each other. Nodes that presented interesting findings, new knowledge, or common themes from multiple participants were kept, whereas insignificant or infrequent ones were discarded.

Four overarching (Fig 4.1) themes were uncovered from the study: 1) Communication 2) Community and Connections 3) Behaviour and 4) Expectations of InspireNet. These represented the main facets of what it meant to be an InspireNet lurker. They communicated in certain ways, valued community and connections, and had certain expectations of InspireNet. These factors manifested to shape their behaviours. Each of these themes will be described in greater detail and supported with participant references in the following section.

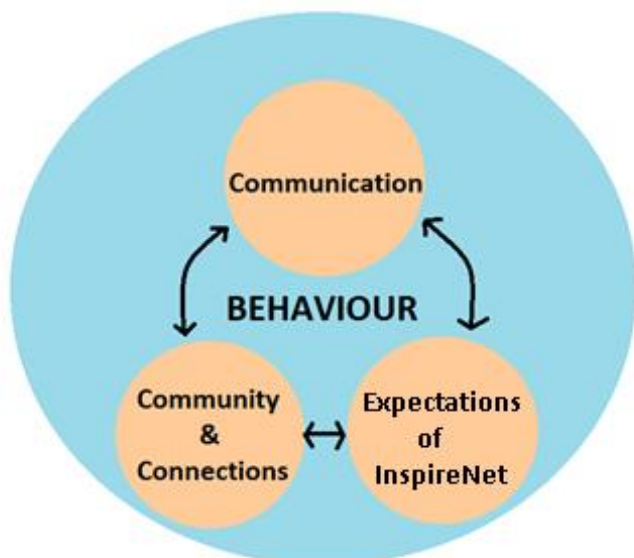


Figure 4.1 Four Overarching Themes

4.4 Behaviour

This next section focusses on the behaviour of lurkers from this research study. This overarching theme is the first of the four to be discussed as it is the most important. The other three overarching themes culminate to create the behaviour of lurkers. One of the three primary research questions this study aims to answer is, “How do lurkers use and/or interact with InspireNet?” This overarching theme helps to answer this.

Although participants had not posted online in the last six months, this level of participation was not at all representative of their engagement with InspireNet. Individuals were still involved with the organization, albeit on a spectrum of limited engagement to involved participation. People were involved with a range of activities, such as reading the e-newsletter, attending webinars, using or sharing learned knowledge from InspireNet, connecting with other members, assisting with InspireNet conferences or hosting webinars. Participants were mild users of social media in general, but they were heavy consumers of many types of health care information. The following are excerpts from the interviews that highlight various ways that participants were involved with InspireNet.

I have had looked at the emails, newsletter on a regular basis when it comes.
[Participant 7]

I'm not inactive but I'm doing a minimum number of those items that you described. So I would be looking at what only would be pushed to me. Why I would go in and look at it, if somebody said there's a webinar coming up or some conversation about something, but that would have to somehow come to me through email. I'm not just going on to the InspireNet site with a bit of initiative. [Participant 14]

Previously I was on the committee to plan the Connect Conference last year, so we were using InspireNet for all of our meetings. We were using the WebEx to do all of that. I get the InspireNet notifications but I have not contributed since the Connect conference. [Participant 13]

Oh yeah, I attend all of the -- so I'm in the -- I can't remember the exact name but the eHealth group. So all of the -- all the webinars they do I've watched or participated in. Actually I gave one as well. [Participant 11]

As this next section reveals, lurkers' lack of online posting was not a fair portrayal of their character in the online and offline worlds. Study participants were engaged with InspireNet and it was important to learn more about their behaviour.

Figure 4.2 is a hierarchy chart of the themes that comprise the main theme of behaviour. The size of the box represents the number of coding references found that support the theme.

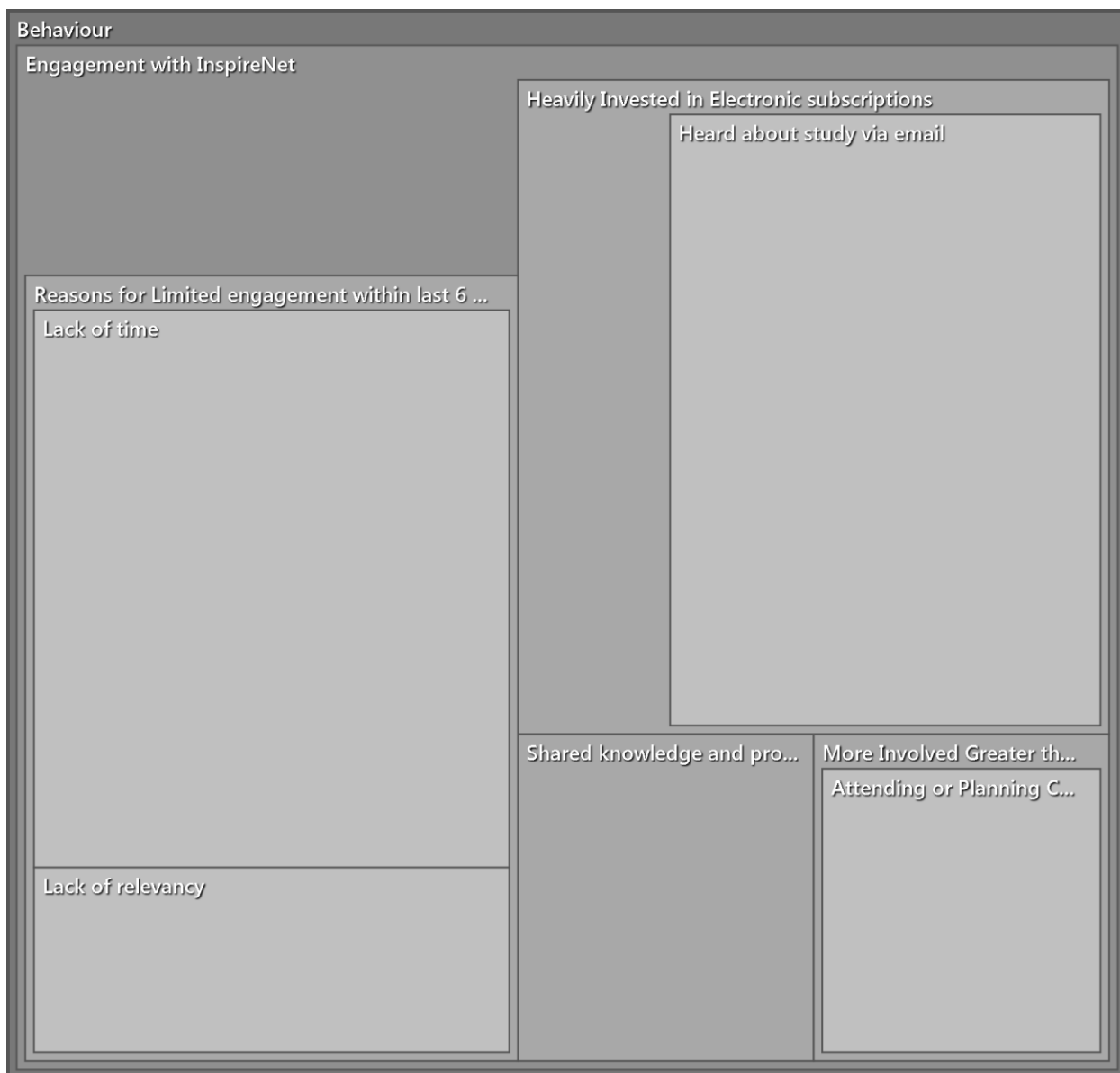


Figure 4.2 Hierarchy Chart of Behaviour Theme

Table 4.2 is another way of representing the communication theme in a table format. The main theme and the sub-themes are listed, along with the number of participants and corresponding references. These themes and sub-themes are described in the following sections.

Theme	Participants	References
Behaviour	15	105
Social Media usage (Non-InspireNet)	15	98
Twitter	10	18
PROFESSIONAL ONLY (Don't use Social media	4	8
Personal Use Mostly	6	10
Only browse (Not post)	7	19
LinkedIn	9	16
Instagram	3	5
Facebook	12	18
Perception of Contribution Value	0	0
Need right Audience and how to knowledge tr	3	3
I might have contribution value	4	5
I have valuable contributions	11	14
Depends on the topic	4	5
Engagement with InspireNet	3	5
Use gained knowledge from InspireNet	11	11
Shared knowledge and promoted InspireNet	11	22
Reasons for Limited engagement within last 6	14	130
Lack of time	12	53
Lack of relevancy	10	38
Information fatigue	12	31
Consumers of a wide variety of health car	8	13
Posting on InspireNet	11	17
Participated in webinars	14	59
Webinars	9	29
Use chat functionality	2	2
Hosted a webinar	2	3
More Involved Greater than 6 months	10	25
Webinars	6	8
Project	2	5
Joined Action Team	2	2
Attending or Planning Conferences	5	6
Heavily Invested in Electronic subscriptions	15	112
Would not otherwise go to website	3	5
Uses newsletter to search for info	6	13
Other Electronic subscriptions (not InspireN	8	12
Heard about study via email	14	15
Browse or skim for applicable information	4	4

Table 4.2 Behaviour Theme and Sub-Themes

4.4.1 Engagement with InspireNet

All participants were engaged with InspireNet related activities at some point in their membership. This section will focus on the main forms of participation as described by individuals.

4.4.1.1 Heavily Invested in Electronic Subscriptions

All participants (N=15) were subscribed to the InspireNet newsletter, which was delivered to their email once every two weeks. The electronic newsletter was an important communication medium that all participants relied on for obtaining information about the organization. Almost all of the participants (N=14) found out about this research study because of the newsletter. It served as a prompt to stay connected and updated with InspireNet. For example, they used it to look for relevant practice knowledge, upcoming webinars, or conference materials. Some participants (N=3) were reliant on the newsletter to such a degree, that they stated they would not have remembered or bothered to visit the InspireNet website otherwise. The quotes below illustrate this.

So whenever it comes out, so whenever I get an e-alert about it, then I will scan it. But I will not seek it, I will not go into InspireNet if I'm not triggered to do so by the e-Alerts. [Participant 13]

So I would be looking at what only would be pushed to me. Why I would go in and look at it, if somebody said there's a webinar coming up or some conversation about something, but that would have to somehow come to me through email. I'm not just going on to the InspireNet site with a bit of initiative. [Participant 14]

Four participants stated they browsed or skimmed the newsletter and proceeded to click on the link if it had pertinent practice or interesting information. Participants had the following to say:

Yeah, I would look to see what -- if there's anything that's applicable and of interest to me. [Participant 14]

Yeah, I always skim the newsletter and see if there is something interesting that I want to, you know, pull up. [Participant 1]

The newsletter also served another important purpose. Six participants reported they used the newsletter as a tool to make it easier to locate information on the InspireNet website. Here are quotes that support this.

Sometimes I would also look into, because of the newsletter, it will point me to look at the resources available on the website, so I will go there as well to look at what other resources are available. [Participant 7]

Usually the emails have direct links which I find helpful. [Participant 4]

More than half of the participants (N=8) mentioned they had regularly subscribed to electronic forms of communication from other health care organizations, such as newsletters, list-servs, Twitter®, Facebook®, or forums. They relied on and used these forms of messaging in similar ways to the InspireNet newsletters to stay up to date with their practice. The following statements highlight this.

Just because sometimes I will browse through Facebook® and Twitter®, I will see -- I have already subscribed to or follow the groups that will give me updates about quality improvements, palliative care research, et cetera. [Participant 7]

Well, like the (inaudible) Library sent me things like almost every week or every other week...Because that is my area, gerontology, and stuff like that. So, I use that a lot. When it comes to my email, I always open it. And sometimes I would forward the stuff to other people too. So, that's a very helpful resource for me, and it is easy to use, they come to my email. [Participant 10]

In summary, all participants engaged with InspireNet electronic newsletters. Individuals relied on these to deliver the latest information to help keep them up-to-date on their practice and connected to the organization. The newsletters were useful as they allowed for an easy way to link more information to the website, if users wanted to further investigate educational opportunities. Many participants were also regularly subscribed to other health care

organizations through electronic means. Similar to the InspireNet newsletter, these outlets provided ways for users to quickly stay up to date.

4.4.1.2 Participation in Webinars

Almost all participants (N=13) were involved in online InspireNet webinars at some point in their membership. The level of engagement for this activity ranged from webinar attendance (N=12), organizing webinars (N=1), to hosting webinars (N=2). Participants commented positively on webinars and deemed them a valuable resource. They scanned the newsletters regularly for webinar topics and attended them when they were relevant or of interest. Some participants were interactive in the webinars, asking the host questions and talking to others via the voice or chat features, whereas others preferred to listen as participants' described below:

But you know, to be honest I'm really happy just with the webinars. [Participant 11]

I like to skim through and see what webinars and things are coming up. [Participant 1]

At the time when [Person 2] introduced InspireNet to me, at that time, I needed to use it for resources. Then I would -- from time to time open it, and I went to -- I actually helped organize a few webinar that I would gather the colleagues into a room, and I would set up the technology then we can attend together, right? [Participant 10]

Generally I try and just listen. Occasionally, I ask a question. [Participant 3]

Participants also took advantage of the archived webinars, which allowed them to view the webinar at their convenience if they were not able to attend in real-time. Three participants commented that they preferred to attend the live webinar due to the interactivity, but would view the recorded webinar as an alternative as they outline below:

If I could make it to real-time one, of course it will be nice, and it could be a lot more interactive, I could ask questions et cetera. But if I can't, it is always good to have the opportunity to go into the archive and catch up on just the content of that presentation. [Participant 7]

Sometimes. I prefer to do it when it's live... just because then you've got a live conversation with people happening and you can -- if you want to you can enter into it. I do a lot of stuff online through Athabasca so it's just nice that we have more live contact with people. [Participant 14]

Yeah, that's good because you can't always do the date and time or you're at work and you'll see one -- I'll skim through the newsletter and I'll see one, and I'm like, "Oh, I can't attend it." But then when they say they've saved it in a link you can go and look it up, I like that. [Participant 1]

Participants thoroughly enjoyed the webinars hosted on InspireNet and thought it was a valuable resource. They preferred to attend in real-time, but would view the recorded version if unable to. There was a range of participation styles, from attendance, organization and coordination, to speaking at the webinar.

4.4.1.3 Posting on InspireNet

As per the inclusion criteria of the study, all participants have not posted on InspireNet within the last six months. It was of interest to see whether any of them had ever posted in the entirety of their membership, as it might have offered insight as to whether this was a transient or chronic behaviour. Only three participants reported they had posted on InspireNet, one person was unsure, and the remainder (N=11) had not. One commented she had posted when she was more active in research challenge projects and Connect team meetings. She encountered an issue with her health authority restricting her access to InspireNet via blocking the website through the firewall, so this hampered her ability to post while at work as outlined below.

So, I'm also -- I support the research challenge activities at both [Organization 1] and [Organization 2] as a mentor for the research challenge teams. And if I have to respond,

and when I was on the connect team, and there would be a question posted and I needed to respond, I couldn't do that from within my health authority. I had to do it at another location. And I found that extremely frustrating. [Participant 13]

More challenges regarding posting on InspireNet will be covered in a later section.

Another participant reported that InspireNet had been used as a launching point for a group of individuals interested in connecting on the topic of health and nursing informatics. He and other group members would communicate via messaging features on InspireNet. Eventually, this group grew and developed into a journal club and messaging was changed to email.

There was a professor at UBC that started up a group. Maybe she advertised it on InspireNet or it started there...but we used to exchange messages through there. And there was places to put comments and whatnot. [Participant 11]

The final person that posted stated she had done this in the context of reviewing posters in preparation for one of the InspireNet conferences and for welcoming new members to the E-CoP group.

You know, I was reviewing people's posters or something for at a conference for something. So we were all in there live doing -- giving our input about various kinds of things over -- you know, I might have posted onto the iPanel forum around something when new people joined to welcome them or something like that. So like that would have been. But I don't kind of just go on and post stuff on a daily, weekly or monthly basis. It would have been around a particular event. [Participant 14]

Few participants from the research study had posted on InspireNet before. All postings were purpose based, such as centered on a project (i.e. Research Challenge), or part of an organized effort (i.e. conference, starting a new group), rather than in response to a blog post or making a general comment.

4.4.1.4 Used Gained Knowledge from InspireNet

One of the goals of the study was to understand how lurkers use and/or interact with InspireNet. As one of the main purposes of InspireNet was to act as a repository and distributor of knowledge, it was of interest to understand if lurkers obtained and used any of this

information. A significant number of participants (N=11) reported they had used knowledge gained from InspireNet. Numerous examples are given below as to how data were applied, ranging from benefits to research, patient care and education.

Yeah, where relevant I have, yes. So an example would be the Nurse's Health Research Pathway, health researcher pathway. So there are -- there were a number of resources within that that were identified within the pathway that were highly applicable. And then also Research Challenge, all of that material is relevant to the teams that I mentor. [Participant 13]

... I know I've thought of things and whenever I go to the webinars I'm always like scratching down ideas for other research. [Participant 11]

Well, I tend to store things categorically in DropBox and so as I need it to write a paper or give a presentation I'd go to what I have topically stored and then I'd review it and use as needed because it's seldom that when you read something you're using it that day but it's something you think, "Oh, I'll use that for that later," and have it stored in a way that it's accessible to me. [Participant 14]

Well, one of the sites that I link in with, and I haven't done it recently, but is the new grad site, and I do an introductory workshop with our new pediatric nurses. So if there's new information on that, I will build that into my workshop. [Participant 2]

Three participants reported they had gained knowledge, but have not yet found an opportunity to apply it yet. They had the intention and would apply it, if there were relevant chances in the future.

I'd say, yes, I mean I try to always use knowledge that I've gained, but I haven't really been engaged with InspireNet enough to make full use of the information that's there, but yeah, what I have accessed I've used. [Participant 3]

I would, but so far I haven't found anything on InspireNet specifically that I can remember incorporating into practice. [Participant 5]

Where there's an opportunity, I definitely will be applying it. As I mentioned, my portfolio is shifting a little bit. I do see opportunities in the next, you know, few years to apply more of what I learn. Again it's, you know, in the world of healthcare, and we do try and -- we're very cognizant around initiatives that we move forward with. If it makes sense and it's going to complement work that I'm doing, then I utilize it. [Participant 15]

In summary, most participants were either already utilizing the information they obtained from InspireNet in their professional practice or had the intention to. They were active in consuming resources from this organization and saw value in what the organization had to offer.

4.4.1.5 Shared Knowledge and Promoted InspireNet

As mentioned above, this study was interested in how lurkers were involved with resources and knowledge on InspireNet. The researchers wanted to understand if the lurker population on InspireNet were active or passive lurkers. Active lurkers were those that shared or applied consumed knowledge, whereas passive lurkers did not take any action on consumed content (Takahashi et al., 2003).

A significant majority of participants (N=11) reported they had shared knowledge with others, such as patients, students, clinicians, researchers or stakeholders. Sharing was primarily done with peers or colleagues, with eight participants stating they had shared with this group. Individuals stated they shared general information about the organization, its' resources (e.g. Newsletter, research, education, WebEx) or specific clinical knowledge (e, g. skin protection, dementia care, deep vein thrombosis care). Participants mentioned that they would forward relevant links and resources to others in that field of work because they thought it would be beneficial, even if they were not able to make use of InspireNet themselves as outlined below.

Because I'm a knowledge broker, I work with researchers, I work with clinicians and I work with decision makers and with patients. So those four different realms. And I probably had conversations will all four -- well, not the patient group. [Participant 13]

I have in the past, yes, to other graduate students. I've encouraged them to just sign up, especially those who have a really keen interest in inter-professional practice and leadership. [Participant 6]

So when I browse through the newsletter, if I see any topic that would be of interest to the others, I will forward those particular links out. [Participant 7]

I know I've referred other people to InspireNet, a fair bit, because of the work they're doing, and see it as an opportunity for them to share their activates to a larger group. So I think I do more of that then I actually do of using it myself. [Participant 2]

In the past I had, when I worked in Providence and like when I said I organized a few webinars or WebEx sections, and I would set up the technology and invite the nurses to come over. [Participant 10]

I am very much somebody who doesn't hang tight onto knowledge. I like to share it and disseminate it where possible. [Participant 15]

Four participants had not shared knowledge with other individuals. One person mentioned that she would share practice information with her colleague if there were an opportunity as shown below:

I haven't, but I probably would if I saw something I thought my colleagues would appreciate. But I haven't so far. [Participant 4]

In summary, the majority of participants from this research study were active lurkers and made an effort to share knowledge with others, especially their peers, whenever a relevant opportunity presented itself.

4.4.1.6 Reasons for Limited engagement within last 6 months

Almost all participants (N=13) made reference to their engagement level with InspireNet within the last six months as being limited, which is described in this study as being involved in one or fewer of the following activities, but not limited to:

- Reading the emailed newsletter/website blogs/Wikis/forums
- Attending, hosting or organizing webinars/conferences
- Accessing the research/membership database online

The reasons for limited engagement with InspireNet fell within three main categories – lack of time, lack of relevancy and information fatigue. The following two sections will focus on these in more detail.

4.4.1.6.1 Lack of Time

A significant number of participants (N=12) commented on time as being a factor in how engaged they had been in the last six months. Comments were analyzed and further categorized in further detail. Six individuals stated they lacked personal time, with the reasons being that school had preoccupied much of their time (N=3) or simply because they did not have any free time (N=3) as is illustrated in the below quotes.

The grant applications and the manuscripts and whatever had taken over in the last little while and so I -- yeah, it's been a lesser priority. [Participant 13]

It could also just be that I need more free time in personal -- or my spare time to do this stuff...So it may not be a failing at all of InspireNet. [Participant 11]

I've received the newsletters, and so I, I see them but in the last six months I've just been really busy so I haven't really had a chance to kind of properly read them. [Participant 6]

Yeah, yeah. I mean, I'm a single parent, so I do tend -- and a homeowner, so I have a lot of other time commitments. So, yes, it's sort of a blanket statement, definitely a lack of time would be up there. [Participant 3]

On the subject of time, four participants stated that having other responsibilities resulted in a lower priority being ascribed to InspireNet engagement. Participants intended to participate in InspireNet activities more frequently when they've completed other more urgent matters in their life as seen in the below quotes.

Yeah, for work and school right, so it's not really just because I have time and I'm sitting here and I feel like, oh I'm going to put my stuff on here. That's the bottom of the list, it really is. [Participant 1]

Although I have intent to attend, I haven't been able to set it as a priority. [Participant 15]

It was of interest to note that two individuals commented on their preference to take part in InspireNet activities only during work time. These individuals had a strong sense of boundaries between work and personal life. They considered InspireNet more towards the

spectrum of work and preferred to keep these related activities out of their personal time as is shown in the quotes below:

Probably I would say lack of time, work time. I don't go on InspireNet other than when I am really at work, when I am doing that focus. And I only work part time, so really limited time factor for me. [Participant 2]

Yeah, because otherwise as an educator I'm balancing so many different things that -- my work falls off my desk, let alone things of interest, you know... I very much have separation of work and personal, and I think that's not because I'm adverse to using social media, it's because in my job I spend so much time on the computer, unlike the use of today, when I go home I don't want to really be on the computer. [Participant 5]

A substantial number of individuals noted that they lacked the time to participate in InspireNet over the past six months. Participants did not have enough personal or work time to prioritize InspireNet participation.

4.4.1.6.2 Lack of Relevancy

Two-thirds of participants (N=10) noted that they had not been active within InspireNet over the last six months as the topics lacked relevancy to their profession or were not of interest as shown in the below statements.

...And also in part maybe because I haven't been told by anything I've seen in terms of something that directly relates to my work and that could be helpful to me right now. [Participant 6]

...and just looking at the content of what's, you know, being posted if it's not particularly of interest that I'm not likely to follow through and take a look at it...Nothing was of particular specific interest to what I'm work on...There's nothing hooking me to go in and to get more involved. [Participant 14]

There's nothing really of interest that I'm actively engaged in. [Participant 2]

Several participants mentioned that topics discussed or presented on InspireNet had been too specific to nursing or not related to their field in healthcare (see below quotes).

So if there's content that looks like it's relevant beyond the nursing realm and into other disciplines and they've connected to or relevant to any of the projects that I'm

supporting then I will engage with it, but there hasn't been anything recently. [Participant 13]

I sometimes think some of the issues are more nursing related than they are OT oriented. [Participant 9]

So my specialty is orthopedics and trauma, so I haven't seen any, you know, great orthopedic things specifically on online, you know, and so because of that I haven't felt the need to participate. [Participant 5]

I didn't find anything with regard to my current focus, which is establishing foundational structures for moving forward with clinical documentation. So it wasn't -- you know, it didn't result in any gems for me. [Participant 15]

One participant mentioned that although having enough time to participate is always important, one would make an effort to prioritize participating in InspireNet if it had relevant information and activities. As outlined in the statement below:

Time, of course time would be an issue, but if it is really relevant, and it's interesting, and I want to look at it, I can always make time, right? [Participant 10]

Study participants stressed that InspireNet needed to have applicable and interesting topics relevant to their field or subject area in order to motivate participation. Participants remained hopeful and open to future participation if this should occur as seen in the below participant statements:

Always hopeful that something will come across that I'm like, "Oh, that's interesting, I need to look at that." [Participant 5]

I'm hoping that InspireNet will become more of a platform that will interest me moving forward with major initiatives around the EHR/EMR/EPR, whatever we want to call it. And in particular, clinical documentation. [Participant 15]

In summary, individuals in this research study reported there was absence of relevant topics on InspireNet. As a result, they had not been as active as they could have been in the past six months. It is important to include content related to a wider scope of health care

practitioners', rather than just nursing.

4.4.1.6.3 Information Fatigue

Twelve individuals commented on the abundance of information online related to healthcare. Many talked about feeling overwhelmed with the numerous sources of information being pushed to them through InspireNet and not having enough time to sort and process all of the information as outlined in the below quotes:

You know, in the world of so much information and knowledge being at our fingertips it's really challenging as a consumer in terms of what you sign up for because with it comes all of the push communiqué, which I have in the past been inundated with, you know, that delusion and you can't see the trees through the forest. Adding any more, you just can't handle it. It's just too much. [Participant 15]

Like, I'm not saying there isn't useful information there, it just is more reflective of, some of the information about those subjects I get through our learning and development groups here at [Organization 2] in conferences and I just haven't had time to go on and go through a lot of them. [Participant 5]

One of the study questions looked at whether participants consumed any other types of healthcare information besides that obtained through InspireNet. It turned out that all participants relied on and actively consumed health care data from multiple sources, as per the Table 4.3 below. The table only shows data from two or more individuals. The largest source of categories of information were from Canadian organizations and associations (N=11), libraries (N=8), and international sources (N=7).

Type of Information	Number of Participants
Canadian Organizations and associations	11
Libraries	8
International Sources	7

Universities	6
Health Authorities	6
Governments	4
Journals	4
College of Nursing	3
Databases and indexes	3
Conferences or workshops	2
Co-workers OR Peers	2
Google Scholar	2

Table 4.3 Health Care Information Consumption

Participants relied on health care data from many sources for a number of reasons, such as research, work, professional practice education, graduate studies, or general interests. Many participants reported that they utilized data from so many sources they could not keep track of all the information at shown in the below excerpts from the interview transcripts:

Well the standard ones for research like PubMed and Google Scholar and all those. All that sort of thing. Then just endless -- like right now with my research, government databases and I can't think of what I'm even limited by. [Participant 11]

I just use numerous -- it depends what I'm doing whether it's for children or older adults or what. Yeah, I don't know, do you want me to list a whole whack? [Participant 1]

Information sources were not just limited to the digital realm, as individuals mentioned they relied on conferences, workshops, coworkers or peers as seen in the below quotes:

Well -- oh, conferences, say, I usually find very valuable. Workshops, things like that. [Participant 3]

But again usually I go right to the source for my clinical resource therapist. She has a wealth of knowledge and experience and -- yeah, is someone in person. It helps to talk to a person about why you need the information you need and what the issues are. [Participant 9]

To summarize, all participants were involved with many other organizations besides InspireNet. Their time was divided for consuming and processing data from a variety of sources. Most of the study participants reported feeling inundated with the amount of information being directed at them.

4.4.1.7. More Involved with InspireNet Before

Ten people reported being more involved with InspireNet activities greater than six months ago, when InspireNet provided information or activities that were more relevant to their work or interests. Activities included: attending/hosting webinars (N=6), attending/organizing conferences (N=5), project work (N=2) or joined action teams (N=2). These observations are exemplified in the quotes below:

Right, so in the last six months none of those. Previously I was on the committee to plan the Connect Conference last year, so we were using InspireNet for all of our meetings. We were using the WebEx to do all of that. I get the InspireNet notifications but I have not contributed since the Connect conference. [Participant 13]

You know, I was reviewing people's posters or something for at a conference for something. So we were all in there live doing -- giving our input about various kinds of things over -- you know, I might have posted onto the iPanel forum around something when new people joined to welcome them or something like that. [Participant 14]

And then I haven't done a webinar in the past six months, but I have done a webinar in the past. [Participant 12]

Although the study subjects were lurkers as they had not posted on InspireNet within the last six months, this was not indicative of their contributions to InspireNet. A significant number of people participated in the organizations' activities before.

4.4.2 Social Media Usage

It was of interest to determine whether lurking on InspireNet was a situated activity for participants in this research study. Nonnecke and Preece (1999) first defined this type of

behaviour as when individuals might be lurking in one online community, but actively posting online in another such community. If lurking was not a situated activity (i.e. individuals also lurked in other online communities), then perhaps lurking was more related to ones' personality (i.e. introverted) or there were similarities between the platforms. If it was a situated activity, then there might be reasons why people lurked more on InspireNet than compared to other websites.

Participants were asked whether they participated and posted on other social media websites in the last six months (see Table 4.4 below for more detail). All participants took part in at least one form of social media, which meant they had an account and read or posted on it. Facebook® (N=15) had the greatest number of users, followed by Twitter® (N=12), LinkedIn® (N=9), and Instagram® (N=3). Regarding posting, every social media website had users who posted online, but not everyone posted. Facebook® had the highest number of people that posted (N=11), but the highest percentage of posting was found on Instagram®, with all three users posting. Facebook® had 73% of users posting, followed by Twitter® (50%), and LinkedIn® (33%). What was surprising was that although Instagram® had the lowest number users (N=3), all of these individuals posted.

Lurking happened on every social media platform except Instagram®. The highest number of lurkers were on LinkedIn® and Twitter® (N=6), followed by Facebook® (N=4) and Instagram® (N=0). The greatest occurrences of lurking were found on LinkedIn® (67%), followed by Twitter® (50%), Facebook® (27%), then Instagram® (0%). From this data, it seemed that lurking was not a situated activity, as this behaviour was not exclusive to InspireNet, with the exception being Instagram®. The number of participants on Instagram®

was only three individuals, so this sample size was too small to say that lurking does not occur on Instagram®, a popular form of social media for participants of this study.

Social Media Participation within last 6 months				
Participant	Facebook	LinkedIn	Twitter	Instagram
1	Y	N/A	Y	N/A
2	N	Y	N/A	N/A
3	Y	N	N/A	N/A
4	Y	N	Y	Y
5	Y	N/A	N/A	N/A
6	Y	N/A	Y	Y
7	Y	N/A	Y	N/A
8	Y	Y	N	Y
9	N	N	N	N/A
10	Y	N	Y	N/A
11	N	Y	N	N/A
12	N	N/A	N	N/A
13	Y	N/A	Y	N/A
14	Y	N	N	N/A
15	Y	N	N	N/A
Y = HAVE POSTED (Posters)	11	3	6	3
N = NOT POSTED (Lurkers)	4	6	6	0
N/A = No account OR not mentioned	0	6	3	12
Total (Posters+Lurkers)	15	9	12	3
Percentage POSTED (Posters/Total)	73%	33%	50%	100%
Percentage NOT POSTED (Lurkers/Total)	27%	67%	50%	0%

Table 4.4 Social Media Participation

Various reasons were given for why participants did not want to post online, but only a few common themes appeared. Several comments reinforced that lurking occurred regardless of social media platform used, which supports prior research that lurking was not a situated behaviour. This was consistent with participants' behaviour, namely reading, but not posting on InspireNet as outlined in the below participant quotes:

Professionally at LinkedIn®, like I said, I've never posted anything from InspireNet on there. I really don't post, I am just sort of more of a passive member. [Participant 4]

Well, yeah, no, I haven't posted anything on Facebook®, I haven't Tweeted anything, and I have not posted anything on Tumblr, but I look at the three of those but I have not posted anything. [Participant 12]

I guess I'm very similar to, in terms of what my social media use, I'm as interactive as I am on InspireNet. In other words I'll look but I won't post. I have a Facebook® account. I think I have a Twitter® account that I never use. I just kind of look at the Facebook® account and see what's posted on there. [Participant 9]

Six participants stated they used social media platforms mostly for personal enjoyment, rather than for professional or work-related reasons. One person said she spent a great deal of time at work on a computer already, so she did not want to continue computer usage back at home. She indicated she felt overwhelmed with the amount of information delivered digitally, thus she only used Facebook® for social media as seen in the excerpt in the transcript below:

Yeah. I very much have separation of work and personal, and I think that's not because I'm adverse to using social media, it's because in my job I spend so much time on the computer, unlike the use of today, when I go home I don't want to really be on the computer... I just deleted something from them today only because they are constantly bombarding me with emails and that drives me a little crazy sometimes, and for that same reason I don't really want to be on LinkedIn® or, you know, any of the other social networks. [Participant 5]

Four individuals preferred to restrict their social media usage to professional matters. For instance, two study participants reported they used Facebook® for working with patient populations, as it was their favoured form of communication (see below quotes).

We've created robotics to help people with cerebral palsy or stroke to practice bi-manual tasks. So we created games and they're linked to Facebook®. So that is why I have a Facebook® account but I do not use Facebook® personally, only related to the research project. [Participant 13]

No, and I would not choose this as a means but my population is young adults and their preference is to use Facebook® and so that's why we're using that and not setting up some other kind of place because you need to work with your population where they're at. [Participant 14]

Social media is a vast topic and this study merely covered one aspect of participation and how it compared to InspireNet. The goal was to understand if participants in this research study lurked on social media platforms like they did on InspireNet. It appeared that lurking was not a situated behaviour and it occurred in other online communities as well.

4.4.3 Perception of Contribution Value

It was of interest to determine how confidently participants perceived their own professional value and expertise, as it might have affected how willing they were to post online. Sun et al (2014) reported that informational efficacy was related to how one viewed their ability to post valuable content (i.e. the higher one scored on this level, the more likely he/she would be to post). The goal of the study here was not to calculate the scores for informational efficacy, but rather, gain better understanding in what participants thought about their own expertise.

Study participants were asked if they thought they had useful knowledge, information, research or comments to contribute. Eleven participants confidently reported they believed they did, versus four that were not quite sure. Three participants stated they needed the appropriate audience in order for their expertise to be fully appreciated. These people were sure they had value to contribute, but it was only valuable if others had a need for their knowledge and expertise. Intrinsically, participants knew they had value as shown in the interview quotes below:

I think I do. Yeah, it would just be a question of getting it to the right people, I suppose. And then figuring out a way to present it. [Participant 11]

I do. I don't know if I have the audience for it. [Participant 14]

I think I have a lot of specialized knowledge. I don't think necessarily everybody on InspireNet would benefit from that knowledge, because it is not really an area of practice that everybody does. So, yeah. [Participant 4]

Four participants were more cautious about reporting their self-view of professional value. They were hopeful they would have value, but only under the right circumstance or activity. Value in these cases were more passively viewed, as it depended on extrinsic factors (i.e. other people, forum) and not as confidently internalized by the participants.

This also depends on the presentation or the meeting or the forum. What type of it is. So, if it is more of a forum type of thing, then yes, I could participate in the discussion.

But if it is just a webinar presentation, unless I have question or comments to make, I will just be there and listen, and watch along. [Participant 7]

It would depend on the topic, but I hope that I would. [Participant 6]

I probably have useful knowledge about something, but I'm not sure what would be most useful to share with other people, because I don't know enough about their interests... [Participant 12]

In summary, all participants were at least somewhat confident they would have value to contribute to others online. Eleven of these were quite certain they had expertise to share with others. Therefore, it a lack of confidence in their professional worth was not a reason why they did not post. The common themes that appeared and could explain low online posting were having inappropriate audiences, forums, or topics.

4.5 Communication

Figure 4.3 is a hierarchy chart of the themes that comprise the main theme of communication. The size of the box is correlated to the number of coding references found that support the theme.

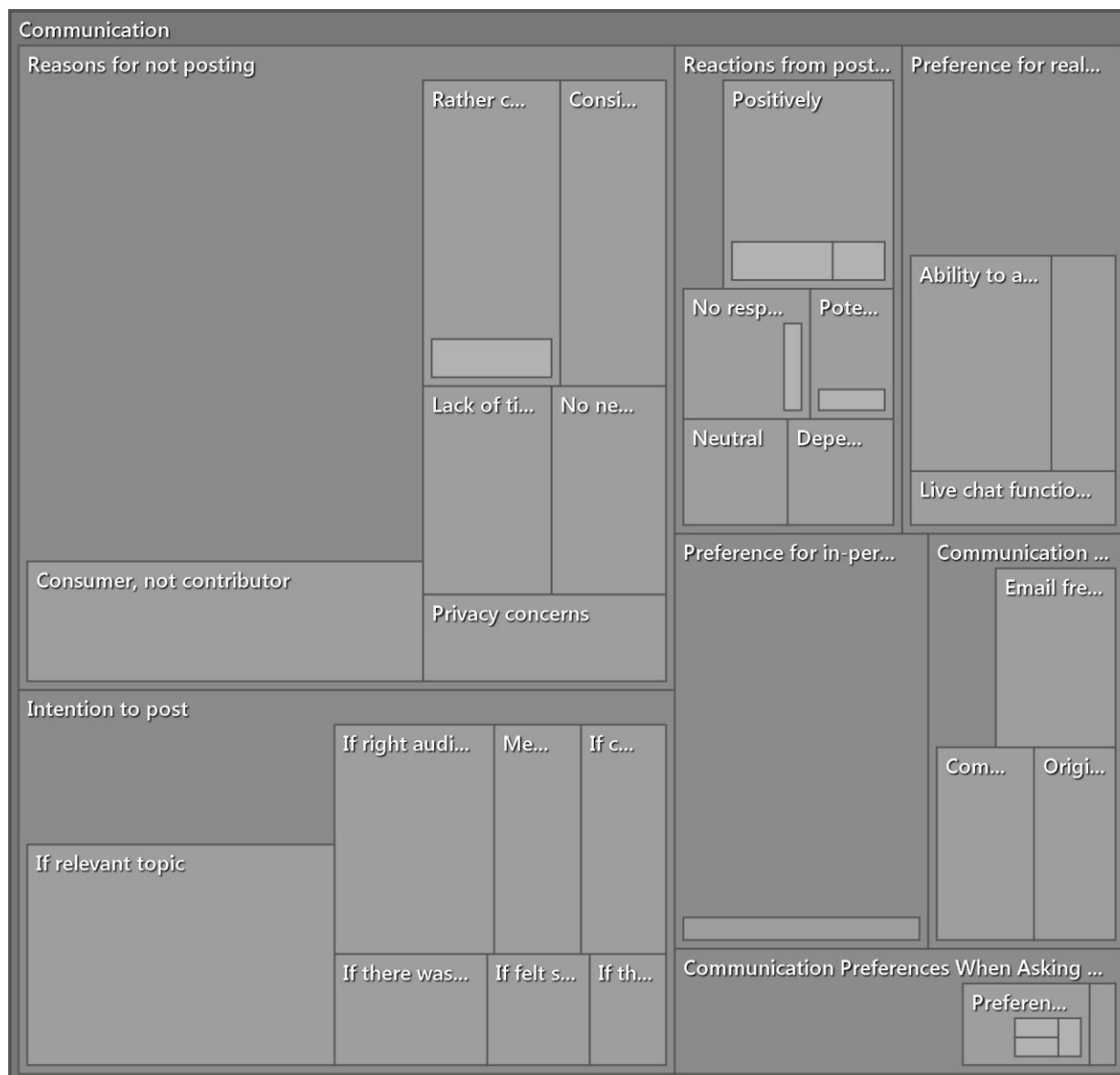


Figure 4.3 Hierarchy Chart of Communication Theme

Table 4.5 is another way of representing the communication theme in a table format. The main theme and the sub-themes are listed, along with the number of participants and corresponding references. These themes and sub-themes are described in the following sections.

Theme	Participants	References
Communication	15	334
Communication Preferences When Asking Questions - Communication dependent on the issue at	8	11
Did not have something to share with others within last 3 months	7	7
Already have enough supports	1	2
Don't know others or their interests, so don't want to share	1	1
Either public or private	6	6
Preference for private	9	23
Closed group	2	2
In-person	5	6
Phone, email or private message	4	6
Communication with other members changed over time	7	25
Communication has decreased	5	7
Email frequently used	6	8
Originally communicated in person	5	6
Intention to post	15	77
If conducting work	4	7
If felt strongly enough	2	4
If relevant topic	9	24
If right audience	4	13
If there was a question	3	3
If there was more engagement in action teams	4	6
Meaningful contributions and purpose	4	7
Preference for in-person interactions	10	32
Online communication lacks subtleties from face to face	1	2
Preference for real-time interactions	8	33
Ability to ask questions	7	11
Live chat functionality	3	4
Prefer live vs archived webinar	4	5
Reactions from posting online	15	29
Depends on comment	3	4
Neutral	3	4
No response	3	5
Lack of activity	2	3
Positively	8	10
Members wouldn't waste time and would be constructive	1	1
Optimistic	1	1
Professional and respectful environment	3	3
Potentially negative	3	3
Perception of negativity	2	2
Reasons for not posting	15	127
Considers oneself passive	7	11
Consumer, not contributor	8	16
Lack of time	4	9
No need to post	4	8
Privacy concerns	4	7
Rather connect in other ways	6	12
Misinterpretation of online communication	2	3

Table 4.5 *Communication Themes and Sub-Themes*

Communication was a broad, yet important category of study for the lurker population. Although on the surface there appeared to be a lack of communication (i.e. online posting) from this group, they did communicate in other ways, had preferences for communicating, beliefs about when it would be worth it to post and how their post would be received by others.

Lurkers had a preference for in-person or live communication with others, rather than online posting. They did utilize the internet for communication, but through more direct means (i.e. email). Although open to posting online, they needed to have a specific intent for doing so, such as collaborating or teaching, rather than just discussing. The following quotes below illustrated some of the preferences participants had for communicating.

Maybe it's a little bit of fatigue around social media use, because I find that I do so much work in it, and you probably hear this from other people, so much work on the computer and on-line, that my best kind of interactions with InspireNet has been through a human conduit. So usually talk with InspireNet members in person, and we just talk about an event that's going on or we talk about ideas or a seminar, and then that kind of piqued my interest. [Participant 6]

The only way I've been involved is either I've given a webinar or I've been part of an online discussion where somebody else is giving a webinar. But I'm not -- I don't do a lot of posting on it. It's just the live connection. Meetings is where I'd be involved. [Participant 14]

Yeah, I mean I guess if I had questions or comments, I might post that. I have never done that. As for linking to it in social media or whatnot, I don't use social media professionally. The only time I might link to something which I haven't done, but I could see myself doing is I facilitate an online course for registered nurses around the province. And sometimes if there is something particularly interesting related to our practice, I could foresee linking in our forums for that. [Participant 4]

I'm not sure because it's not a "go to" for me in general, I mean not InspireNet specifically but I'm not a blogger. I'm not someone that uses the Internet in that way, I use it pretty much for information. And I will e-mail, I'll connect with family and friends through e-mail, but really it's -- if I want to talk to someone, I will connect with them directly. [Participant 2]

4.5.1 Intention to Post

Participants were asked about whether they would be open to posting on InspireNet in the future, in order to understand more about their willingness to post. Table 4.6 is a summary of the reasons or circumstances that participants gave for when they would post online.

Theme	Participants	References
Intend to post	15	77
If relevant topic	9	24
Meaningful contributions and purpose	4	7
If conducting work	4	7
If there was more engagement in action teams	4	6
If right audience	4	13
If there was a question	3	3
If felt strongly enough	2	4

Table 4.6 Intentions for Posting Online

All fifteen participants stated they were open to posting on InspireNet, but only if certain conditions were met. Nine participants reported that the relevancy of the topic was an important factor for whether they would post or not. They felt that in order to be engaged enough to post, they needed an interesting topic of discussion that was more relevant to their area of practice or research. Some thought their field of interest was too narrow. These reasons are illustrated in the below quotes:

Well, just because my interests are narrow, I suppose it would -- like if they had a really strong eHealth group, you know? And they might but it doesn't seem all that active. Like there's a lot of webinars but I've never actually seen like -- at least I don't think I have, like a chat area or anything specific to that -- those interests. So that might be more inspiring.
[Participant 11]

My specific field is a little narrow, so it's about a panel approach to care but it's about young adults whereas a lot of iPanel work is about older adults in institutions and so I don't -- there's a pediatric world and there's adult world and my population sits in neither place.
[Participant 14]

For the past month or two it seems like there was a lot on palliative and making the palliative care better, which is not one of my areas of specialization, so I tended to not be too involved with that. But if there's something that I feel more directly involved with or that's in line with my area of expertise, then I would be more likely to post. [Participant 3]

I might be, I suppose if there was an interesting discussion going on. I'm not opposed to doing it, I just, you know, it's sort of the last thing that I tend to have the time for. [Participant 1]

Lurkers were open to posting online, but required purpose as a prerequisite (i.e. work, project or teaching related). Availability of time and the content being discussed were important factors to drive lurkers to post.

4.5.2 Reasons for Not Posting

Participants were asked about their reasons for not posting within the last six months of their InspireNet membership. Various reasons were reported by participants, with the most significant ones as shown below in Table 4.7 (i.e. greater than three participants reported). The following sections will be focused on each of these reasons.

Theme	Participants	References
Reasons for not posting	15	127
Consumer, not contributor	8	16
Considers oneself passive	7	11
Rather connect in other ways	6	12
Privacy concerns	4	7
No need to post	4	8
Lack of time	4	9

Table 4.7 Reasons for not posting

Eight participants considered themselves to be consumers of information, rather than contributors. They described their preference for obtaining information online. Posting online was not an activity they would participate in. The quotes below illustrate these points.

I more use InspireNet to take information out, not adding much. Not contributing. I'm non-contributing member. [Participant 11]

I just kind of use it to my advantage. I watch the presentations, and I really don't do

too much else. [Participant 4]

I'm not sure because it's not a "go to" for me in general, I mean not InspireNet specifically but I'm not a blogger. I'm not someone that uses the Internet in that way, I use it pretty much for information. [Participant 2]

I use it and I read it. I don't contribute. [Participant 8]

Usually I don't because I'm really seeking out information not to share my own. [Participant 9]

These participants did not want to utilize InspireNet to post online, but rather, they used InspireNet for resources and information.

4.5.2.2 Considers Oneself Passive

Seven participants described their personality and learning style as being more passive. This carried over into their communication preferences of not posting online and favoring other means of correspondence, which will be discussed in a later section and can be seen in the below quotes.

I really don't post, I am just sort of more of a passive member... I think I'm a bit more introverted, so I probably would do the one-on-one thing. [Participant 4]

I am more passive. So, I don't actively go on InspireNet to see, "Oh, what's up? What is going on?" [Participant 10]

I can't comment on posting because I'm not one of those who post. I'm not really -- you know, I don't put myself out there... It's again not my nature to post. [Participant 15]

I just kind of take the information I receive and I sort of just try and sort of retain the most relevant bits of it. I won't necessarily respond I suppose. It's a more passive learning experience perhaps. [Participant 9]

Interestingly, participants exhibited this passive behavior not only on InspireNet, but also on other social media outlets, such as Facebook®, LinkedIn® or Twitter®. Some participants had only posted on Facebook®, while others have never posted at all as illustrated in the below focus group excerpts:

As for my personal life, it would be usual, Twitter®, Instagram®, and Facebook®, but I don't typically -- I have never posted anything from InspireNet or Linked. [Participant 4]

And because I don't do it for my other social media sites that I'm -- you know, maybe accessing more often. And hence I don't do it for Inspire. [Participant 8]

It's again not my nature to post. I only really post on Facebook®. [Participant 15]

Since I don't even post on Facebook®, then I'm, like, I'm probably unlikely to post on InspireNet. [Participant 12]

Participants in this research study described their online behaviour as passive. They preferred private means of communication and did not want to post online on InspireNet. This type of behaviour carried over into other social media websites as well.

4.5.2.3 Rather Connect in Other Ways

Six participants stated their preference to communicate in other ways instead of posting online. They wanted to have discussions or conversations with other people, but believed posting online was not a good venue for communication as it was tedious. Participants preferred direct and private communication either in person, on the phone, or by email. The following quotes help to illustrate how participants described their communication preferences:

I don't find it a good discussion venue. I find ideas are partially formed, may not -- you know, online you may not get context or subtleties that in a face-to-face discussion comes with debate or dialogue. [Participant 5]

When I talk to someone I talk to them face to face or I call them on the phone... I would probably read it and if I was interested I would send an individual email or phone that person, if there was a way to do that. I am much more likely to do that than I am to post on a website. [Participant 12]

Yeah, because there's other ways of communicating that same information. [Participant 9]

I still like to pick up the phone and I do still like to have individual engagement, you know, discussions, even if it's via e-mail. [Participant 15]

One participant described how she would rather post her contact information online so that others could contact her privately. This was interesting as it showed she would rather forgo privacy and release her contact information online - albeit in a member's only space – than to have a discussion through online posting. This is illustrated in the following quote:

Yeah, I would make it general to say, "Hey, you know, I'm actually working on the same thing too. Would love to connect and chat with you about this." So if anyone who likes to know more, they can just -- you know, my contact is right there, then after I post it they can contact me as well. [Participant 8]

Two participants deemed that online posting placed themselves at risk for misunderstandings when having discussions with others, as shown in the quotes below:

So you know everybody can have faux pas or the way they -- one of the worst things with posting stuff is it can be misunderstood. And it's like, "That doesn't sound exactly the way I mean it to sound." You know, there can be misunderstandings. So that's what nice about live. [Participant 1]

I'm not -- I know once it's out there, to take it back and even well-worded good intent messages can sometimes be misinterpreted and so that. [Participant 15]

In summary, many participants wanted to have conversations with other people on InspireNet, but preferred to communicate privately in more traditional ways such as in-person, by phone, or email. In the eyes of participants, these methods were better for avoiding misunderstandings and provided a richer dialogue.

4.5.2.4 Privacy Concerns

Four participants reported some concerns with privacy and the sharing of information online. They expressed trepidation with divulging data online due to the permanent nature of posts. They were cautious about posting due to potential associations with work or relationships. As well, individuals refrained from posting online as they prioritized their privacy as illustrated in the below quotes:

I don't feel comfortable putting tons of information like my, you know, where I work, you know, position, all these things on the Internet, you know, for the world to see, you know. [Participant 5]

You know these days you have to be careful what you post that everyone can see. Once you've posted it's posted. [Participant 1]

Again, some of my previous roles, I'm a little more constrained, putting myself out there because there is that, you know, by association. [Participant 15]

I'm not going to ever share lots of details about my day-to-day life with -- definitely not with people I don't know, so. So that's probably the prime reason... Even outside of -- I think the privacy things and then that I've never been a big correspondence [Participant 12]

In summary, a minority of participants had reservations about posting online due to privacy reasons. They had concerns about divulging personal and work-related information online as others might be able to identify them.

4.5.2.5 No Need to Post

Four participants stated there was no need to post online if they were not engaged with any online activities or groups. These individuals' primary goals were related to using the resources available on InspireNet and they did not believe this type of activity warranted posting online. The quotes below describe this situation:

So it comes down to no need. It's not relevant and there's no need, and when there is I'm an active participant. [Participant 13]

There is no need to. Why not? I am not engaged in activities that I would need to post comments. I am mostly using it to access different resources and community, so it is not like I am reading through a blog and then I will comment on it, that kind of thing. It's no response -- like my activity has no response required I would say. [Participant 7]

It's almost more like, like I'm always looking up stuff for a reason and posting as such it's more -- it's almost like casual, like it's more -- it's almost more like hobby type...it's more like fun time, you know what I mean? [Participant 1]

Don't see there's a need. And there's no need, there isn't anything to comment on.
[Participant 8]

A minority of study participants believed posting online was optional because nothing was seen as requiring a response. They were active in using resources on InspireNet and felt there was no need to post from participating in this manner.

4.5.2.6 Lack of Time

Four participants expressed that although they were not opposed to posting online, they had not prioritized posting information due to a lack of time. These individuals were preoccupied with work and/or school and could not allocate any additional time for posting online, as shown in the quotes below:

I think it's in part because I've been really busy with my work. I'm trying to finish this coming semester... So it's really busy with school and also in part maybe because I haven't been told by anything I've seen in terms of something that directly relates to my work and that could be helpful to me right now. [Participant 6]

I'm not opposed to doing it, I just, you know, it's sort of the last thing that I tend to have the time for... So I am always looking up stuff for that, and doing all these other things that honestly I, you know, there's so much I have to do that I don't get around to posting. [Participant 1]

One person reported he spent most of his day on a computer, so he did not have the desire to continue with computer related activities (i.e. online posting) on his personal time at home, as shown in the below interview excerpt:

I think that's not because I'm adverse to using social media, it's because in my job I spend so much time on the computer, unlike the use of today, when I go home I don't want to really be on the computer... Like, you know, sometimes -- like within my job there's barely the hours in my day to complete my job. Because of that limits my ability or desire to participate in something, in building sort of some connections with. [Participant 5]

In summary, a fraction of the study participants reported that a lack of time was the reason for why they had not posted online. Participant lifestyle, career, or academic preoccupations took up most of their time.

4.5.3 Reactions from Posting Online

Connective efficacy is the perception of how one believes others will react to online posts (Sun et al., 2014). The higher one scores on this scale, the more likely one believes others will react positively and thus be more willing to post. A lower score means that one believes others will react negatively to posts, hence leading to a behaviour of not posting online. Past experiences from how others reacted to previous online posts could also influence the likelihood of how willing one would post again in the future. It was thought that lurker participants would rate low on connective efficacy and believed that others will react negatively, thus having this perception carried out in their low online posts.

Connective efficacy scores were not calculated in this research study, but participants were questioned about how they believed other members would react if they had posted online on InspireNet. Some participants provided multiple answers to this question (e.g. positive and neutral response). A range of responses were obtained from individuals, which will be described in the sections below.

4.5.3.1 Positively

Surprisingly, the majority of participants (N=8) thought other InspireNet members would react positively to their online comment if they had posted. They have had positive and professional interactions with other members in the past and believed their amiable personalities would transfer to the online realm. Participants thought InspireNet members would not spend their time foolishly on negative online comments. They reported they would provide a positive

experience for other InspireNet members online, so it would make sense that others would reciprocate. The quotes below illustrate these findings:

And like I said I think my interactions through InspireNet, it's professional yet friendly. [Participant 13]

I think nurses are generally pretty positive people, so I would say positive. I would expect positive, not negative. Definitely not negative. [Participant 4]

I mean, if people ask for information, then, if I am able to provide the information and people would appreciate that, and vice versa, right? If I ask the question, someone has an answer for me, I mean, of course I will appreciate that. It will be positive... Well, InspireNet, I think people are pretty professional. I don't have a problem with it. I haven't seen anybody who has said anything that's really unprofessional. [Participant 10]

I'm sure it would be positive... I mean, why else would they be there. Most of us don't want to waste our time we're all busy, so if you're there you're there to be constructive. I don't think too many people are there just to be negative. [Participant 1]

Study participants hypothesized that if they had posted online, other InspireNet members would react positively. They believed members on InspireNet were professional people and would act as such in their online behaviour.

4.5.3.2 Depends on Comment

Three participants thought about how others responded to their online posting and how this response would depend on the tone of the posting. For example, if the comment posted was respectful in nature, someone responding likely would reply in the same manner. Conversely, if an individual perceived an online comment to be negative, it would be probable that the response would mirror this, as illustrated in the below quotes:

Well, I think that depends how you comment. If you comment in a way that's transparent and open and friendly and not judgmental, and all of those kinds of things you're going to have a more positive response. So I don't think it's who is stating it, it's how you're stating it, how you're interacting. [Participant 13]

But I think it would really depend on what the topic was, because if it was something that people disagreed with, then they might respond negatively. If I did post something, then they might respond, if it was something that seemed favourable or that they agreed with, then it would be positive. And if it was something that they didn't really care about or just wasn't relevant to their work, then they would either ignore it or just see it as news. [Participant 6]

Two participants believed that depending on the topic and context of their online posting, there could be a range of responses, from positive, to neutral, to no response or to negative. This is highlighted by one the participants in the quote below:

I think it would be a combination depending on what the topic was. I'd say all of the above. You know it really depends on what it is. I mean if I'm asking questions, like for this policy group, you put out your call for information and sometimes you get a ton and sometimes you don't get any. And it's just whether people have the time or are busy to respond...I don't know I haven't engaged in InspireNet in that way so I don't know if there are guidelines around how people engage in the system. [Participant 2]

A minority of study participants thought that if they had posted on InspireNet, other members' responses would depend on the tone or context of their message. A wide range of responses would be possible, from those that were positive, neutral, negative or even if there was a lack of response.

4.5.3.3 Neutral

Three participants expected other InspireNet members to reply in a neutral manner. One participant thought members would be more positive in a particular eCoP, compared to neutral responses from the general InspireNet membership. Another member was hopeful for positive comments based on the nursing profession, but believed comments would at least be neutral. These comments are as outlined below.

If they're in that group, positively. And if it was outside that group, probably just neutral. [Participant 11]

I think it would be positive, neutral. I think it would hopefully stimulate thought, stimulate interest and engagement. You know, engaging with me on similar topics.

That's what I would anticipate given, you know, the level, you know, of professionalism and you know it is focussed on nursing and practice. [Participant 15]

A fraction of participants believed online responses from InspireNet members would be neutral at the very least. They were hopeful for positive comments and thought others might comment as such, but they could only speak for the electronic online communities of practice they were a member of.

4.5.3.4 No Response

Three participants believed other InspireNet members would not respond, if they had posted online. One participant had previous experiences, where others had not responded to her posts. She mentioned a lack of response might be due to different work interests. Here is what she thought:

The realist in me would say no response, because I feel if that happens -- it seems to happen often. And if it was something that they didn't really care about or just wasn't relevant to their work, then they would either ignore it or just see it as news.
[Participant 6]

The other two individuals made statements related to InspireNet being an inactive platform. They thought it was perhaps isolated to the particular eCoP they were part of or assumed others were simply not reading some of the online content on InspireNet. These comments are below:

I would say no response. Because I don't feel like it is a very active platform, at least for the group that I'm in. [Participant 7]

I think there would be no response, because they'd probably -- like me, there're not even paying attention. [Participant 12]

Some of the study participants did not believe others would respond if they had posted on InspireNet. Various reasons for this were based on the past experiences of users and from the assumption that InspireNet was not an active community.

4.5.3.5 Negatively

Three participants thought they could not rule out that other InspireNet members might respond to online postings in a negative manner, although no one had adverse experiences with any InspireNet members in the past. One stated that negativity was possible and it depended on the topic being discussed, as individuals may have differing opinions. Her comment was:

But I think it would really depend on what the topic was, because if it was something that people disagreed with, then they might respond negatively. [Participant 6]

Another participant did not think it was likely InspireNet members would respond in a negative manner, although it was still imaginable, but a more likely scenario would be a criticising comment. The quote was as follows:

Yeah, probably even negatively. I would assume people would respond in a professional manner but it may still be a critical. [Participant 2]

The last participant alluded to having bad experiences with negative comments on another website and attributed to poor moderation by the site administrator, so she believed negativity was a general issue for online communities. However, she could not comment, if InspireNet would be prone to this problem. Here was her statement:

In terms of posts, one of the other reasons that I'm a little leery of posting and contributing to these kinds of communiqués is how well they're managed by the administrator and I don't know if you're involved in that at all, Tom, as a site administrator. You know, how you're managing posts and putting up and putting down. I've seen some -- you know, what may have been designed and built to be professional forums quickly go sideways based on some of those posts and quite frankly I wouldn't want to be associated with it. No, I can't comment on InspireNet. It's just what's informing my own behaviours. [Participant 15]

A small number of participants studied believed there was a chance of negative responses appearing on InspireNet, although participants thought it was unlikely. It was unclear why these individuals thought it was possible, but for one person, her beliefs were shaped by observing previous negative experiences.

4.5.4 Preference for In-Person Interaction

Twelve individuals commented on their preference for in-person interaction for communicating with people over other forms of collaboration. In-person communication allowed for an easy, efficient and comfortable ways of exchanging ideas which participants thought online technology could not rival. The following are some quotes illustrating this:

So through doing committee work, like planning Connect, InspireNet Connect. So I met other people on the group that I wouldn't have met if we hadn't have been sitting on that committee together, and conferences and then meetings in real life, not virtual... There's an ease of connecting for anything else that might be relevant that comes up. [Participant 13]

Whenever I see them I always feel welcomed and greeted and I feel quite comfortable. I'm much more a face-to-face people person then through-the-computer person. [Participant 2]

One participant highlighted how face to face communication permitted a richer form of conversation with more context and subtleties. Here is what she thought:

My best kind of interactions with InspireNet has been through a human conduit... So usually talk with InspireNet members in person, and we just talk about an event that's going on or we talk about ideas or a seminar, and then that kind of piqued my interest. And as much as technology facilitates us being together, it doesn't quite make up for seeing someone in the hallway and having that two-minute interaction and talking about some things coming up. And then that's kind of a reminder that's more tangible. [Participant 6]

Another participant thought online interactions were more detached and could not allow for the formation of deep connections with others that in-person interactions could. She rationalized that her connections with others online were not as strong and were attributed to not spending enough in-person time with other InspireNet members. Her quote was:

I have had complications just with trying to get into a group that I'm part of or kind of see what's happening there. But the group that I'm most connected with is iPanel and then there'd be some others but I guess I haven't made a deep enough connection or maybe don't have a connection early enough or with other people on it in a face-to-face way that maybe it keeps it quite loose and distant. [Participant 14]

This was reaffirmed by another participant, who stated it was hard to form a relationship without in-person contact. She stated she tended to have better connections to

others with face to face interactions. It was easier to maintain these relationships online or via email after this. She had this to say:

I tend to have more of a connection with people that I can see, and if I can see them first or have a face-to-face sort of meeting with them, and then I can maintain the connection online or over email, but without the face-to-face I would find it harder to develop any sort of relationship. [Participant 12]

Two participants valued the in-person InspireNet conferences. They helped to create a sense of community and belonging to other members, as well as feel connected to authentic people. Their quotes were as follows:

Well, I'd say just going to the conference I went to made me feel like a community member. I think because that in person involvement, for me anyways, is much more significant as far as feeling belonging. [Participant 3]

I like the in-person thing. The InspireNet conference, I wasn't able to go last year, but I really enjoyed it when a couple years ago I went, and they had those e-poster, right? Yeah, I went a couple times, and it was very enjoyable. So, you get to see people, and the people you talk to, and yeah. So, I think it is combination, you need that face to face, and so you know that you are engaged with and you connect with real people, right? [Participant 10]

An overwhelming majority of study participants valued and preferred in-person interactions with other InspireNet members. This form of connection facilitated relationship building, ease and efficiency for communication, and greater clarity in understanding.

4.5.5 Preference for Real-Time Interactions

Eight participants talked about the importance of having real-time online interactions, with many referencing their experience with live InspireNet hosted webinars. They enjoyed having the opportunity to ask questions and receive answers in the moment, which allowed for an organic conversation to occur. They preferred this form of live interaction, as it removed the delay from waiting for a response (N=7). The following quotes illustrate this:

I prefer to do it when it's live... Yeah, some of them we've actually been able to talk, not just even type in questions... Get a conversation going. [Participant 14]

So if someone states something and I don't understand it fully, I have the ability to question it at the moment; where in a blog setting that person may not be online... you have to then wait for a response. The important comment has probably been missed or, you know, I've gone on to other things. [Participant 5]

Some stated their preference for live webinars over archived ones as live interactions allowed for a more engaging discourse (N=4). It also reduced ambiguity, as it allowed an opportunity for asking questions. The following statement from one person highlights these benefits:

I like attending in real time. I mean it's more engaging. Because sometimes if people use certain PowerPoints or things like that, they can be a little unclear... Or they say something and you've missed it or you want to clarify, it's nice to have that real time to be able to do that. [Participant 1]

Three participants mentioned a live chat feature on the InspireNet website would interest them, as it would facilitate instant dialogue between members, as illustrated in the excerpt from the interview below.

Sure, it would be enjoyable. I guess I'm just not sure about the logistics as far as getting people together, but I'm not sure if within the system that InspireNet is using if there's the ability to request an online live chat, or so, yeah. [Participant 3]

More than half of the study participants favoured live interactions over asynchronous ones. They commented on benefits similar to those from in-person interactions, such as ease of communication, reduced delays for responses, and greater clarity. Their experience with real-time interactions on InspireNet came mostly from webinars.

4.5.6 Communication with Other Members Changed Over Time

Seven participants spoke to how communication with InspireNet members changed over time. Many participants (N=5) originally met other InspireNet members in person (i.e. InspireNet Conference, Committee work, workplace). Email was the most used method of correspondence for developing and maintaining relationships (N=6). However, over time,

members reported that the frequency of communication between members decreased (N=5). For example, one person reported he moved away from Victoria, which presumably restricted opportunities for in-person interactions and relationship building. His statement was:

It's all about distance, right? I mean, you know, not living in Victoria. [Participant 11]

Some participants met other InspireNet members through project collaboration. As these projects were completed, there were fewer reasons for people to stay in touch. The following are two excerpts that illustrated this.

So through doing committee work, like planning Connect, InspireNet Connect. So I met other people on the group that I wouldn't have met if we hadn't have been sitting on that committee together, and conferences and then meetings in real life, not virtual. [Participant 13]

They were people that I met virtually and we had a job to do and then the job was done. So they -- I don't work with them, they aren't an acquaintance, they aren't a friend. [Participant 14]

As the frequency of interactions decreased, the relationship became harder to maintain. For example, two individuals spoke about their difficulties maintaining communication with others because there were less in-person opportunities over time.

Either through an event, and so just kind of chatting with them because we sat beside each other, or through school...I would say that communication with these individuals has become minimal in the last year. [Participant 6]

Well, the other person was a co-worker, so I was seeing her face to face, but that was at Kwantlen University and because I'm no longer there I haven't corresponded with her since...because I think her research project that I was going to participate in is finished. [Participant 3]

Almost half of the participants in the research study had issues with maintaining relationships with other InspireNet members. Common goals or activities (i.e. conferences, school, project, and work) created opportunities for in-person or more frequent interaction. As

time passed and these opportunities became scarcer, it became more difficult for individuals to continue the same level of interaction, and thus the relationship became weaker.

4.5.7 Communication Preferences When Asking Questions

Participants were asked what their communication preferences to other InspireNet members would be if they wanted to share a practice issue that happened in the last three months. Seven participants had nothing they wanted to share with others. It was optional if they wanted to elaborate on this question, and most chose not to. Only two individuals explained why they would not want to discuss about a practice with other members. One person did not feel comfortable opening up to the larger InspireNet membership because of people she might not know. The following was her statement:

No, because I don't know who they are. So it goes back to the thing that I don't feel like I have any relationship, I don't know who these people are so I don't know -- I say I don't know what their interests are, they are on whatever that group is, but I don't know about their interests enough to feel like I would want to share something.
[Participant 12]

Another person felt there was no need to talk about a practice issue with other InspireNet members because she felt supported enough by her social or professional networks already.

The next passage supports this description.

No, I think I've got the support that I need, so no... That's right. I feel that I have multiple sources that I can tap into for help or support or extra guidance. [Participant 9]

Eight participants were open to discussing with other InspireNet members about a practice issue, but it was dependent on the problem being discussed or the question being asked. It appeared that some topics were appropriate for public discussions, whereas others should be more private. Some reported posting publicly had benefits over more private communication channels, such as having more responses with a greater audience reach. Overall, these participants saw value in both private and public means of communication, as illustrated in the below quotes:

It would be directed. Well, let me put it this way. You identify the stakeholders based on what the issue was. So if I was putting something like a big call out, an FYI, about something that is relevant to the wider membership, then I would let the wider membership know. If it was a specific issue that was pertinent only to a small number of people or that you needed buy in from that smaller group first, then I would address them personally. [Participant 13]

It depends on what the question would be. [Participant 7]

Well, it would depend on the discussion and the depth of it, but my first response would be no. But, again, it sort of depends on the exact nature of the content that, you know, there would be some of it that would be interesting to have full public comments, access and comments, but some of it not. [Participant 3]

More private means of communication were preferred by most participants (N=9), with five preferring in-person dialogue, four favouring phone, email, or private messaging, and two indicating closed-group forums would be ideal. The quotes below highlight some of the private ways that individuals liked to use for communicating with others.

I think I'm a bit more introverted, so I probably would do the one-on-one thing. [Participant 4]

If something had happened I usually do it one on one, and so I reach out and network with other educators here at [Organization 2]. And various meeting formats, or even privately... Sometimes by phone, sometimes by email, sometimes I drop -- if it's something that's really under my skin I'll drop past their office. [Participant 5]

I mean it does depend on the topic and how much of it, how in-depth you're getting but overall I'm old fashion I prefer the phone call, the video conference than e-mails and posting where you're waiting for a response down the road. [Participant 1]

The last two participants were nonchalant about how they wished to communicate with other InspireNet members. Regardless of what the topic was, both thought it was appropriate to discuss either publicly or privately with others. Their excerpts from the interviews illustrate this below.

Either is fine. [Participant 14]

I don't mind doing it publically. I mean, it is fine. Any of those ways are fine with me... And sometimes when you -- I find if I have a question, and when I posted publicly I get more answer because it's public, right? [Participant 10]

In summary, just less than half of the study participants did not want to discuss practice issues with other InspireNet members. Depending on the topic at hand, the remainder were open to having a conversation with others, but the majority of these individuals preferred private means of discussion, rather than posting publicly.

4.6 Expectations of InspireNet

This section documents what lurkers on InspireNet expected from the organization. The study set out to discover what originally attracted the participants to join InspireNet and then sought to determine if the organization had lived up to these members' expectations. Thus, the study allowed the researcher to gain insight into the potential reasons why participants may not have engaged more with InspireNet (i.e. online posting). Issues regarding accessibility and usability will be addressed in this section as this was an area that seemed to affect the ability of participants to engage fully with InspireNet.

Figure 4.4 is a hierarchy chart of the themes that comprise the main theme of Expectations of InspireNet. The size of the box is correlated to the number of coding references found that support the theme.

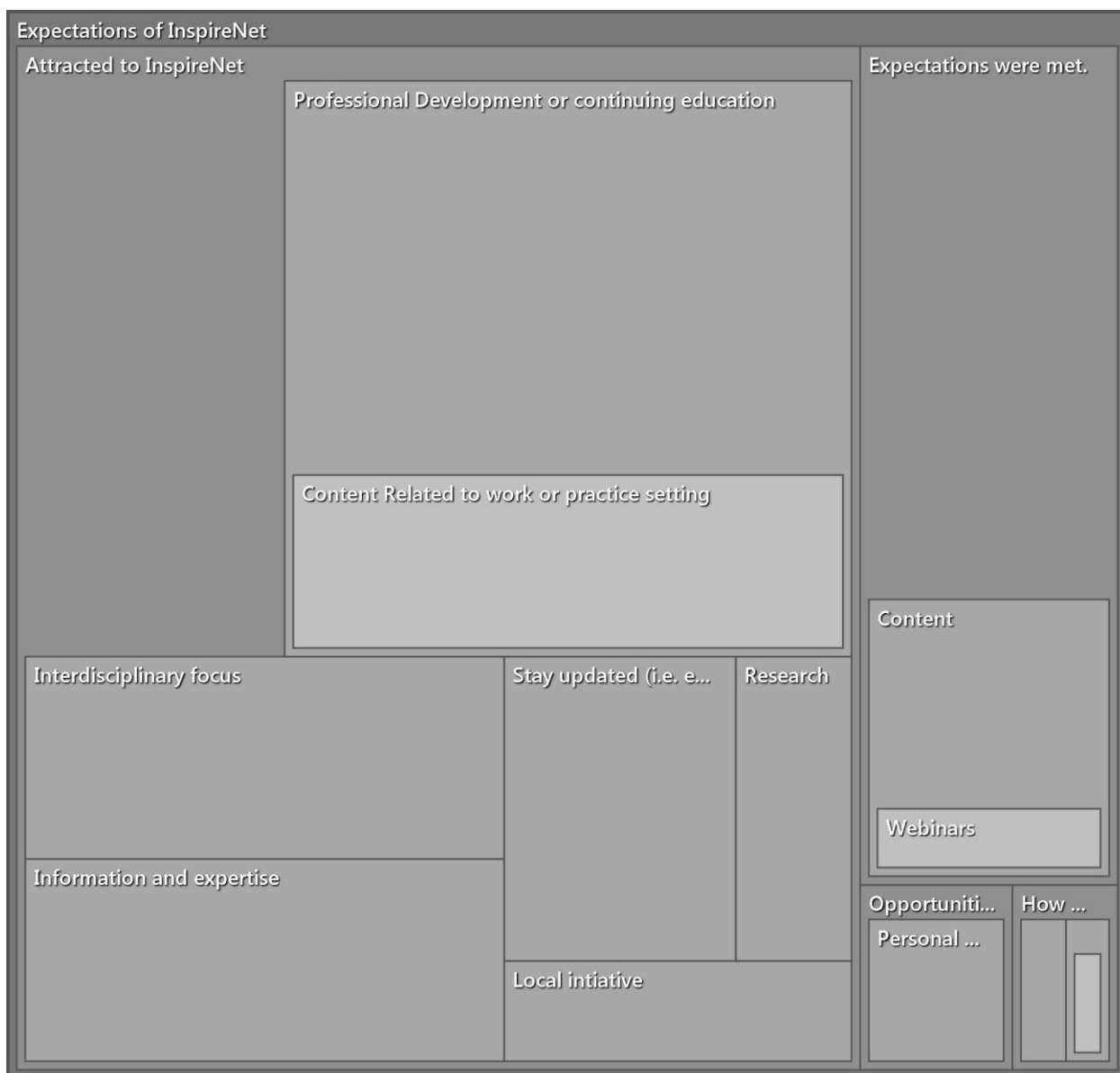


Figure 4.4 Hierarchy Chart of Expectations of InspireNet Theme

Table 4.8 is another way of representing the expectations of InspireNet theme in a table format. The main theme and the sub-themes are listed, along with the number of participants and corresponding references. These themes and sub-themes are described in the following sections.

Theme	Participants	References
Expectations of InspireNet	15	107
Attracted to InspireNet	15	92
Information and expertise	9	11
Interdisciplinary focus	4	11
Local initiative	4	4
Professional Development or continuing education	13	37
Content Related to work or practice setting	7	12
Research	3	4
Stay updated (i.e. events, community news)	6	8
Expectations were met.	10	15
Content	6	9
Webinars	3	5
No missing eCOPs or action teams	6	7
How much have members benefitted from being a member	0	0
As expected	9	13
As expected in line with personal level of engagement	5	5
Less than expected	3	7
Lack of relevant content	2	3
More than expected	3	3
Opportunities for Improvement	0	0
Accessibility and usability	15	30
Not straightforward or user friendly	6	10
Looping issue	3	8
Many clicks needed	4	4
Unable to find content, rely on newsletter	5	13
Straightforward	9	15
Expectations were NOT met	5	9
InspireNet is not yet a Community of Practice	6	14
InspireNet did not come to mind	4	7
Personal Responsibility	9	15

Table 4.8 *Expectations of InspireNet Themes and Sub-Themes*

4.6.1 Attracted to InspireNet Content

Participants were asked via an open ended question about what attracted them to join InspireNet initially. As well, they were asked what their goals were when they engaged with InspireNet activities and were given example categories to choose from. The examples of goals given were: conversation and stories; entertainment; information and expertise;

professional development; community and connections. They were given the opportunity to elaborate on their answer, but this was not mandatory.

Almost all (4/6) of the reasons that participants reported fell under the category of InspireNet content, with the exceptions of interdisciplinary focus (N=4) and local initiative (N=4). Only themes with a significant number of participants were included (N>3). Table 4.9 below lists the reasons that participants had for being drawn to InspireNet. The following sections will expand on each of these reasons.

Theme	Participants	References
Attracted to InspireNet	15	99
Information and expertise	9	11
Interdisciplinary focus	4	11
Local initiative	4	4
Professional Development or continuing education	13	37
Research	7	11
Stay updated (i.e. events, community news)	6	8

Table 4.9 *Attracted to InspireNet*

Thirteen participants reported they were attracted to InspireNet originally because of the potential for professional development or continuing education to advance their career. Participants wanted to seek out new information pertinent to their field. The following quotes highlight this.

I'm heavily, heavily engaged in continuing education, both in providing it and taking it. And so there's a number of different ways that I avail myself of that, like KT Canada and a whole host of things, NCCTM, and so there have been other continuing Ed opportunities... I'm constantly engaged in continuing education opportunities. But there hasn't been anything relevant that I've seen on InspireNet. [Participant 13]

Well, my goals were, really, to try and stay abreast of innovation and what's happening out there with regards to health and nursing informatics. My interest in data analytics and my focus in evaluation research of information systems. So those are generally what I'm interested in and what would drive me to access InspireNet. [Participant 15]

A further seven individuals called out seeking content related to their work or practice setting as a goal when they engaged with InspireNet. These people specifically wanted to find information that directly benefitted their practice or workplace. Excerpts from two participant interviews illustrate this below.

Things that are relevant in my particular area of practice, which is focused on sexually transmitted infections and HIV, and I provide education in that area of practice. So, you know, looking at even things like trauma informed practice, because that affects when we are interviewing clients and caring for clients. So things like that. [Participant 4]

Any information or things that appeal to my area of practice or areas of interest to me personally, like, just, you know, an inquiring mind, shall I say. You know, sometimes you see things that just spark your interest in a subject, you know, that you may want to read about that may not be pertinent at the moment to your workplace or to your job, but it's something, "Oh, I've always wanted to know about that, let me look at it." [Participant 5]

Nine participants reported being drawn to the information and expertise offered by InspireNet. Individuals were not necessarily after content that was immediately beneficial to their practice. They had a general interest for information that were just purely of interest to them, or thought it might be useful in the future. It was also important that information was delivered by reputable health care experts. This is demonstrated by the following participant statements.

You know, sometimes you see things that just spark your interest in a subject, you know, that you may want to read about that may not be pertinent at the moment to your workplace or to your job, but it's something, "Oh, I've always wanted to know about that, let me look at it." [Participant 5]

Sometimes it's just "Oh that sounds interesting" and other things, "Oh, I wonder if that will be useful for what I do?"...I liked getting the information from, reputable information from other health professionals and things like that. You know there's a post some of their -- I honestly like getting the information. [Participant 1]

Seven participants indicated they sought out information on InspireNet related to research. They looked for new research funding, ideas, tools, or research projects to participate

in.

Sometimes I'll also get ideas for research. [Participant 11]

There are resources related to research, so I look into that category...like they have tools, linked to other websites as to “Oh, these are the research related tools that you could use” or “You can find more information about it”, that kind of thing. [Participant 7]

I often am drawn to, like, with yourself sort of is there an interesting research project that I could participate in as a participant as opposed to leading it or directing it. [Participant 2]

It seemed like a good way to network with colleagues and to find out what's happening in the community. I was working on my PhD at the time, so again it was a great networking process in terms of colleagues, research, people with similar interests looking for funding. [Participant 14]

Six participants reported they aimed to keep informed about events related to the nursing community or with news on the health authorities when they browsed InspireNet. This information allowed them to further connect or network with others (i.e. InspireNet conference event).

I think when it first started I recently moved back here from Ontario and so it seemed like a good way to network with colleagues and to find out what's happening in the community. [Participant 14]

Just to keep abreast what's going on with what's initiated, or what's new with other health authorities are doing [Participant 8]

There are events, which I would click on to the website and find out more. [Participant 7]

Four people described their admiration for InspireNet's goal for having an interdisciplinary focus, rather than just be centered on the nursing profession. This was important as they believed collaboration between all health care professions was critical in order to advance medicine.

But moving forward, in terms of big vision, it's not just the lens on nursing, I think we can learn from others and inviting more, a broader group of professionals. I think we're able to glean -- well we'll have access to more experience and knowledge whether it's medical informatics or bioinformatics. You know, and then it opens up to a bit more of a national/global community. [Participant 15]

One person eloquently gave a clinical example of a patient diagnosis and how it's treated by more than one profession. Just like this example illustrates, it's important that InspireNet members work and learn collaboratively in order to improve patient care.

And I applaud InspireNet for opening it up to be more interdisciplinary because, you know, there's 3,000 PTs, 3,000 physios in B.C., just over, I think there's about 3,200. We couldn't have a platform like that, we simply don't have the numbers to support that, and when you think about treating a patient, it's interdisciplinary anyway. Like, whether we're doing -- managing a DVT, a DVT is not just managed by a physician or by nursing or by physio or by OT, it's collectively across, you know. When we're working with a patient who has a particular pathology we shouldn't have exclusive siloed domains in them. So we learn more with each other than we do without each other. [Participant 13]

Another individual commended InspireNet for changing its name away from nursing to be more comprehensive.

And I think they actually changed the name, right?... Yeah, so which I think it was a good move. They just -- maybe they have to change the focus, even the name. They removed the nursing to something else which I think it was -- it was good. It was a good move. It's more inclusive. [Participant 8]

Four participants were drawn to joining InspireNet because it was a local initiative in British Columbia. There was a desire to be connected to and work with other BC InspireNet members.

I think also because it's local it's kind of a B.C. product that I know that the folks online are mostly from British Columbia. So I think that's an important part of it as well. [Participant 2]

It's nice to see individuals around the province who have common interest and willing to share their work. [Participant 15]

Because I think lots of discussions focuses on lots of B.C. research activity. [Participant 8]

In summary, study participants were attracted to InspireNet primarily for professional development and continuing education. Obtaining information for general interests, research news and staying up to date with the community were also factors for joining InspireNet. Participants valued how InspireNet tried to maintain an interdisciplinary focus and started as a local initiative.

4.6.2 Expectations of InspireNet were Met

Study participants were asked whether their expectations of InspireNet or eCoPs were met. They had the opportunity to elaborate on how they felt the organization and its online communities fared to their expectations. This did not mean that these participants had no issues with InspireNet, but rather, their overall expectations were satisfied. The next section focusses on participant reported issues and opportunities for improvement. Only themes with an adequate representation were kept ($N > 3$). Ten participants reported positively that their expectations had been met. They thought the content was interesting and appreciated the regularly emailed newsletter. They valued the opportunities InspireNet provided for collaboration, relationship building and sharing.

It's met my expectations on what I use it for. Yeah, it's an interesting site. [Participant 1]

Yeah, I mean I do receive regular emails telling me when there is new presentations that might interest me. So, I'm quite satisfied with that, and I just leave them in my inbox if I want to watch them to sort of key myself that there is still something there I want to see. [Participant 4]

Even though again I'm not experienced in navigating and browsing the platform because I've been away from it for a while. But those that I have -- yeah, I would say they meet my expectations... It's nice to see individuals around the province who have common interest and willing to share their work. [Participant 15]

Until you engage with them you're not aware of just how easy it can be, like to meet with people from all over the province so easily. And it's through those discussions that you create other collaborations, and you're aware of other things that are happening and you share documents or you share ideas, or stimulate new partnerships. So I found that those e-communities have not only addresses what the intent of them has been, like for a specific project, but it's also created a ripple effect to stimulate other things. [Participant 13]

Six participants commended InspireNet on the wide assortment of content delivered in the form of newsletters, webinars and conferences. The material was useful, practical and evidence-based. It lived up to these participants expectations.

Yeah. I would say yes as it is just for accessing content knowledge of things. [Participant 7]

I like to skim through and see what webinars and things are coming up. [Participant 1]

Yeah, I think so. Well, except, like I said, the public health one didn't go anywhere but I mainly focused on the eHealth ones. [Participant 11]

The topic that they present, it's either in emerging practices or emerging -- you know, conversation, or -- yeah. It's helpful and practical, and lots of stuff, practice-based research, which I enjoy a lot. [Participant 8]

Three individuals specified that they especially enjoyed the webinar presentations given by knowledge experts and how they are recorded and able to be viewed at a later time.

And, yeah, those are great. Whoever gets all those people to volunteer and talk. It must take a lot of effort. But you know, to be honest I'm really happy just with the webinars. [Participant 11]

Yeah, that's good because you can't always do the date and time or you're at work and you'll see one -- I'll skim through the newsletter and I'll see one, and I'm like, "Oh, I can't attend it." But then when they say they've saved it in a link you can go and look it up, I like that. [Participant 1]

Six study participants stated they did not think InspireNet was missing any eCoPs or action teams. They believed that all groups and topics of interest were adequately represented

by the existing online communities. Two individuals commented that the interdisciplinary focus was serving the needs of the membership well. Additional online groups concentrating on specific health professions would have too narrow of a focus or insufficient engagement.

The quotes below illustrate these points.

No, not that I can think of, you know, and that's probably just reflective of, you know, what I -- you know, there's nothing glaringly that I can think of. [Participant 5]

Oh -- no, I think it's good variety, you know. Because I think there is a variety of it, so -- because it is not fair to ask to have a nutrition-specific, because then every other discipline would love to have that, because then it's just defeat the purpose of Inspire. Because then the RT, then the PT, then the OT, then the SLT, then the dental hygienists, and blah blah blah. You don't think so? I think what you guys have, how you guys put it, it's pretty broad enough, I think it's applicable to all. [Participant 8]

There's probably not enough of us. I think it's called Nurse Educators' Scholarship. If it was just, like, "health care professional scholarship" that would suit me, so making it broader rather than narrower. Because there's lots of different allied health professions, and if we all split off in our own things that's too small, but we could band together. [Participant 12]

In summary, two-thirds of the participants stated their expectations of InspireNet and its online communities had been favourably met. They liked the availability of interesting knowledge based content and felt all necessary topics or groups of interest had been represented by existing online eCoPs.

4.6.3 Opportunities for Improvement

This section focussed on areas that InspireNet could improve on, as highlighted by participants. Themes covered were unmet expectations, accessibility and usability issues, InspireNet as a sharing platform, and personal responsibility.

4.6.3.1 Expectations were not Met

Five participants stated their overall expectations of InspireNet and/or its online communities had not been met. Only one common theme appeared from two individuals, but

this might have been due to the small fraction of the study participants. They reported a lack of relevancy in the material presented on InspireNet. One person's quote highlight this.

Maybe some of the topic is not really relevant to my work. [Participant 10]

Participants cited additional reasons for unmet expectations. For instance, one stated there could be a lack of social connection. She preferred the in-person interactions and for her, a lack of this detracted from her experience.

I think the social factor is important if there is someone that I know who is doing something with it, and then that might motivate me to go into and look around and see, oh, you know, that's something about KT, have you looked at that, you know, and I might kind of look around and I might find something that I want to post. [Participant 10]

Another individual referred to a lack of time as a factor leading to her lowered expectations of InspireNet. This theme has been repeated in several sections above.

I just -- a lot of it is time factor and areas of interest at this point in time. [Participant 2]

One person insightfully mentioned that perhaps there was a lack applicability of the materials presented on InspireNet. She reasoned that InspireNet content was at a higher conceptual level, so she struggled to make use of it in her clinical practice.

In practice, I do find it more difficult because it's more difficult to have those kind of structured goals or structured action and forms of communication that we see in communities of practice that are maybe, let's say, like based in just one institution or several institutions. Well, let's say in one hospital unit that then works as other units in that particular organization versus like an on-line network that is national or provincial. [Participant 6]

Someone blamed herself for a lack of engagement leading to her expectations not being met. She thought InspireNet was not at fault.

It's really hard for me to say because I haven't been as engaged as I would like. Yeah, so I blame myself more than the action team not living up to my expectation. Yeah, and having not really applied myself, I don't think I'm the best person to really comment on how well they've done at something or not, again, because it's my lack of engagement.
[Participant 3]

To summarize, only a few participants thought InspireNet and its communities had not lived up to their expectations. Most of the reasons reported for this were unique and reported by single individuals, except for a lack of time and relevancy, which were issues that participants had reported in above sections.

4.6.3.2 Accessibility and Usability

Technical issues with online websites may sometimes be the reason for lowered engagement. Participants were asked whether they thought the InspireNet website was straightforward for browsing and posting online. They were given the opportunity to elaborate on their answer and reveal any technical issues they might have had. All study participants had opinions regarding accessibility and usability on the InspireNet website. Only common themes with $N > 2$ participants were kept.

Regarding the interface and layout of the website, nine participants thought it was relatively straightforward to browse for content or post online and had positive comments.

I don't think I've ever posted there. Yeah, no I haven't but browsing is straight forward.
[Participant 11]

I think -- I mean, I think that the overall layout is pretty user friendly. [Participant 6]

I think so, I don't spend a lot of time on it just because it's -- unless it's something that really catches me then I will go straight to whatever that item is. But it doesn't seem particularly difficult. I think it's pretty straightforward, yes. [Participant 2]

I feel like I can move around to what I am looking for quite easy. [Participant 1]

It's kind of a very utilitarian site. [Participant 9]

The remaining six participants thought the InspireNet interface was not straightforward or user friendly. Five of these individuals had difficulty locating content directly by navigating the website. As a workaround, they avoided browsing or searching on the website and instead, relied on clicking links on the emailed newsletter.

Sometimes I would also look into, because of the newsletter, it will point me to look at the resources available on the website, so I will go there as well to look at what other resources are available, but otherwise I don't generally go into the website and browse through it. [Participant 7]

Usually the emails have direct links which I find helpful. [Participant 4]

Yeah, I usually check the newsletter and I will sometimes click into different items depending on what it is. [Participant 2]

No, it does, but the only way I can get to it is by opening up the newsletter and clicking on the link, because I can't get to it by opening up the InspireNet website... I find it really, really, really un-user friendly... As I said, I wait for the newsletters. I like the content in the newsletters and I'm sure there's stuff on the website that's good, but I can't get to it. [Participant 12]

Four individuals commented that the website was tedious and time consuming to use as it required many mouse clicks. After some time, they were eventually able to find their desired content.

Yeah, I wouldn't say really trouble, but I found it, say, more labour intensive almost than I expected. [Participant 3]

Well, I would say just based on my very limit attempt this morning to connect with one of your members and identify some of the research that she's done, I didn't find it that easy. I had to go through a number of tabs and fields. Finally I found her on the KT lunch and learn. Where I would have liked to have seen more -- you know, I guess that LinkedIn® profile type where I could find her profile and research interest. [Participant 15]

It's not just one click link to just open up the webinar and then you type in whatever the address and your name, and just click "Join meeting". Sometimes you have to navigate

through a series of portals, I call it, through the main page and -- so, yeah. [Participant 8]

Three individuals had issues with 'looping, where it would send the user back to the same page multiple times or require multiple logins in order to navigate to the desired content.

The website, I don't think it is that straight forward. Because I remember earlier on, it kind of took me into loops. So, it's set up as different groups, and it is not as easy or user friendly as I would imagine it would be. It does take a while. Eventually I would get there, but if I were to verbally describe it to someone how you would get from one place to another, I probably won't be able to unless I am sitting in front of the computer and try to experiment through it. [Participant 7]

Yeah, see if you're trying to join a team then you have to -- you get this sort of double thing you have to do. So I would have said I was already -- yeah. Yeah, so I'm trying to get into the HEARR Network and then I'm into my profile and so I'm not getting into the HEARR Network. I'm just -- when I click on it, it's taking me to my profile. [Participant 14]

Absolutely not. I can't find anything on it, absolutely nothing. I have had no success, and it feels like you have to log in everywhere. [Participant 12]

Three people had some issues with accessing InspireNet in their work environment. Issues were isolated to the health authority and related to restricted access and missing applications (i.e. Chrome and WebEx).

I can access InspireNet but for whatever reason, I don't know what it is, I can't respond... there would be a question posted and I needed to respond, I couldn't do that from within my health authority. I had to do it at another location. And I found that extremely frustrating. [Participant 13]

The only -- well, a little bit, occasionally you do, but it's because of our old computer system here at VGH, but as an educator I also have access to Google Chrome, so sometimes I will access through Google Chrome and that usually isn't a problem. [Participant 5]

And sometimes, because I know Vancouver Coastal and Fraser Health recently have gone through the refresh program, and some of the -- unfortunately the new window does not support some of the platform... so, sometimes I know during the transition, when we're not able -- I wasn't able to connect to the webinars, you know, during that transition period. [Participant 8]

To summarize, most participants thought the InspireNet website was user friendly. Some people had accessibility and usability issues, especially with finding content. They complained it required too much time and effort to navigate the website, often times reverting to using the newsletter to find what they needed instead. Technical issues existed in the workplace, which further complicated and restricted the accessibility of InspireNet.

4.6.3.3 InspireNet was not yet a Community of Practice

Six participants commented that they felt InspireNet was not yet a CoP in terms of networking, posting online and sharing ideas with others. They liked using InspireNet as a resource for accessing content (i.e. Webinars), but felt the website was not active enough or they could not find the time to connect with others online for these activities. The following quotes highlight these thoughts.

I think if InspireNet is more of a community of practice, then there will be more people kind of sharing, it will be more of a platform of people sharing ideas. And actively networking, then I would see myself using that more often. [Participant 7]

I don't use it for a networking tool... Only because of the groups that are on it. None of them are specific to what I really do... But, no, for the most part, you know, some of the things have been more limited by my time. [Participant 5]

Four participants made reference to InspireNet not naturally 'coming to mind' for online posting or finding answers. If the subscribed newsletter had not provided an emailed notification, they might not have remembered to visit the InspireNet website. Some reasons for this were that using InspireNet has not yet been incorporated in their workflow, or they did not consider the organization to have enough impact for posting online. These individuals' statements are as follows:

So I think a few times that's happened with InspireNet, in terms of something to look into something. But I guess in terms of finding answers through InspireNet, that's not something that I've learned to do. [Participant 6]

To be honest, it doesn't come to mind in terms of the impact that it would have to post an article on InspireNet. Well, I guess when you post an article in large spaces, you know, the number of people that would look at it, use it and move it forward. I have never thought about InspireNet as a group that would enhance the impact of the research. [Participant 14]

I just hadn't thought about using it. [Participant 2]

I don't know, I just kind of forgot about it, and from -- I'm kind of passive. When the email come in and I open it I have a look, but other times, like most of the time I don't even come across -- like I don't think of InspireNet. It's not in my mind. [Participant 10]

To summarize, a portion of the study participants did not consider InspireNet as an online community of practice yet. Utilizing InspireNet for its resources, posting online, or connecting with others did not naturally occur to them as actions to take.

4.6.3.4 Personal Responsibility

Nine study participants alluded to personal responsibility as being a factor in how engaged they had been with InspireNet. They stated their expectations of InspireNet or feeling of being a community member of the organization has directly been correlated with the time and effort they have invested. They saw an opportunity to be more engaged if they wished. The following participant quotes speak to this.

I personally feel like I'm a member and I think the opportunity to engage is there. It's up to the member to decide to what degree they wish to. I think you could become extremely engaged if you had the inclination and the time to do so. And at different times, I guess, I've been more or less engaged depending upon the project. [Participant 13]

It could also just be that I need more free time in personal -- or my spare time to do this stuff. [Participant 11]

Well, I don't put the effort in to go into it. [Participant 3]

It's really hard for me to say because I haven't been as engaged as I would like. Yeah, so I blame myself more than the action team not living up to my expectation... As expected, because it's really been me just limiting myself. [Participant 3]

That's a good question. I mean, I would if I was participating more, like engaging with other people, maybe I would, but that's my own choice. I feel like there is the opportunity to be a member of the community, but I don't take advantage of that. [Participant 4]

Probably as expected, for me it's -- I get out what I put in. I don't put a lot in so I'm not expecting to get a lot back, so for me it's as expected. [Participant 2]

I still see there is opportunity. A lot of it is my own fault, I haven't invested time. And I do see the opportunities. [Participant 10]

Again I'm limited in terms of what I put out. [Participant 15]

While most individuals found it straightforward to use InspireNet and did not encounter issues, several areas of opportunities for improvement had been identified in this section. Participants reported issues with accessibility and usability, particularly with unnecessary mouse clicks and time to find content on the website. Using InspireNet for networking, posting online, or finding information did not come naturally to users. Due to this, they believed InspireNet was not yet an online CoP, but it does have the potential to be. Finally, participants highlighted personal responsibility as an important factor on the level of engagement with the organization.

4.6.4 How much have Members Benefitted from their Membership?

Study participants were asked how much they had benefitted from being an InspireNet member. Options were: more than expected, as expected, or less than expected. It was optional, but they could have elaborated on their answer if they wished. The purpose was to gauge their experience of being an InspireNet member and possibly reveal if there were issues that negatively impacted their involvement.

Eight participants reported their benefits from InspireNet were as expected. Five of these individuals specified that they could have obtained greater benefits from InspireNet if they had been more inclined to do so. Similar to the above section on how study participants reflected on

their engagement with InspireNet, these individuals alluded to personal responsibility as a reason why they had not benefitted more from the organization. Excerpts from the participant interviews are below.

And I would say that I then benefit as expected just in terms of my level of engagement with the community, which, as you can see, in the context of this interview, I'm trying to analyze. [Participant 6]

As expected, because it's really been me just limiting myself. [Participant 3]

Probably as expected, for me it's -- I get out what I put in. I don't put a lot in so I'm not expecting to get a lot back, so for me it's as expected. [Participant 2]

Even though again I'm not experienced in navigating and browsing the platform because I've been away from it for a while. But those that I have -- yeah, I would say they meet my expectations. Again I'm limited in terms of what I put out. [Participant 15]

Well, I seem to get from it what I currently am looking for, and I, you know, when I first joined it I wasn't really sure what to expect. So, you know, you go in thinking what it's going to be about and it's pretty much met what I was expecting. I mean I'm sure you can get much more out of things. You know, you sort of get what you put into something, so I'm sure I could get more out of it. I'm sure it has much more information on it than I've really hunted to it. You know, I'm sure there's more on it than I've been currently using it for. I just haven't had a whole whack of time to really delve into it, and I'm sure that there's stuff that I'm missing. [Participant 1]

One person mentioned her expectations of InspireNet in general were as expected, but they were more than expected when her focus at work was aligned with an eCoP. Here is what she thought:

I would say as expected. Again I think for me I think it's been very helpful. Oh, I will say I have used InspireNet in terms of the new grad transition work that I did at B.C. Cancer Agency. So that's another time and focus when I was quite active and that was very beneficial. So I'd say it exceeded my expectations. But in general I'd say it's as expected.

Three people thought InspireNet had exceeded their expectations. One person explained she truly enjoyed the annual conferences and the opportunity to present her work to others.

I'd say more than expected in terms of the annual meetings and having opportunity to present my research at the annual meetings. [Participant 14]

Another three individuals stated they had benefitted less than expected. Multiple reasons were given, but primarily, it stemmed from two factors: a lack of time and lack of relevancy. The following quotes highlight these factors.

I don't think I have used all the function there, so I don't know enough to use it more often. I have only been to a few webinars. Yeah, I haven't been able to learn it enough to navigate it through, so it is less than expected. And it takes more time, so I don't have that kind of -- yeah, I did not have the time to learn it through and navigate in order to get more out of it. [Participant 7]

You know, time, not being able to fully commit to being, you know, engaging in groups and that sort of thing. Like, you know, sometimes -- like within my job there's barely the hours in my day to complete my job. Because of that limits my ability or desire to participate in something, in building sort of some connections with, say, like -- so my specialty is orthopedics and trauma, so I haven't seen any, you know, great orthopedic things specifically on online, you know, and so because of that I haven't felt the need to participate. [Participant 5]

I sometimes think some of the issues are more nursing related than they are OT oriented... There are many other sources of information out there right, it's not just InspireNet. There's like, on the VCH Connect website there's, you know, a very comprehensive source of clinical information and links and that kind of thing. So yeah InspireNet just doesn't offer as much information wise as the VCH Connect one does, to me in terms of my practice. [Participant 9]

To summarize, most of the study participants were satisfied with the amount of benefits obtained from being an InspireNet member. It was aligned with their level of participation. The number of people that experienced greater than expected and less than expected benefits were a small minority. A lack of time and relevancy of content were repeated themes that contributed to dissatisfaction.

4.7 Community and Connections

Participants reported on the importance of connecting with others. It was discovered that many were already connected to InspireNet members and some of these were core members. Feeling of community membership was quickly present for many participants soon after joining InspireNet, but for some, this feeling changed over time. Many still remained

members on InspireNet for a variety of reasons. Finally, participants revealed their opinions towards lurkers and posters.

Figure 4.5 is a hierarchy chart of the themes that comprise the main theme of community and connections. The size of the box is correlated to the number of coding references found that support the theme.

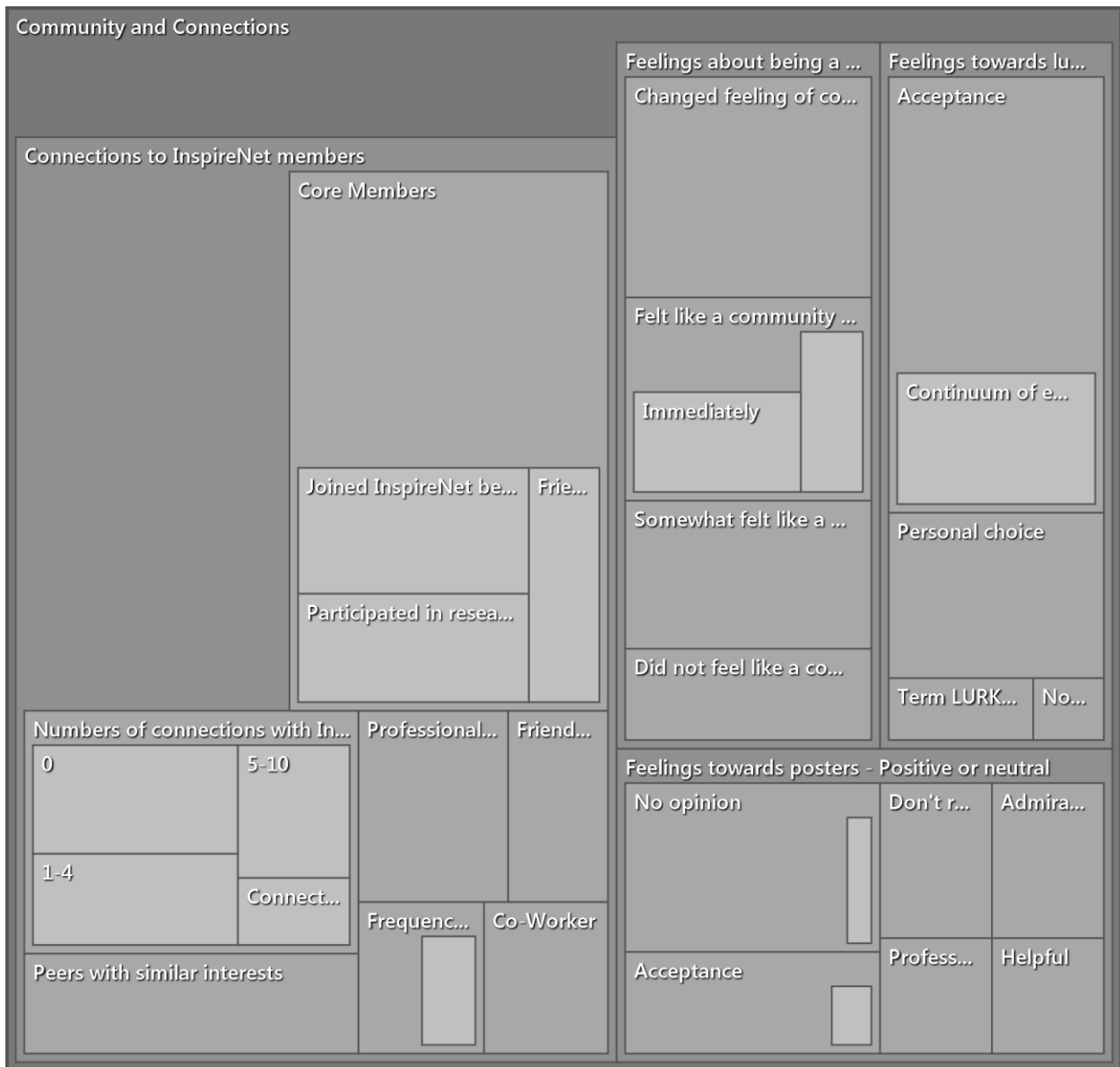


Figure 4.5 Hierarchy Chart of Community and Connections Theme

Table 4.10 is another way of representing the communication theme in a table format.

The main theme and the sub-themes are listed, along with the number of participants and corresponding references. These themes and sub-themes are described in the following sections.

Theme	Participants	References
Community and Connections	15	206
Connections to InspireNet members	15	106
Core Members	7	36
Co-Worker	4	4
Frequency of interaction with InspireNet members	2	2
1 or 2 times per year	1	1
Dependent on reason	2	3
Monthly	2	2
Occasionally	4	4
Weekly	1	1
Friendship	2	4
Numbers of connections with InspireNet members	15	17
Peers with similar interests	4	7
Professional basis	6	6
Feelings about being a community member	15	36
Changed feeling of community membership	4	12
Did not feel like a community member	5	5
Felt like a community member	8	11
Somewhat felt like a community member	6	8
Feelings towards lurkers - Acceptance and personal choice	15	25
Acceptance	12	14
No opinion	1	1
Personal choice	6	8
Term LURKER or PERIPHERAL MEMBER used	2	2
Feelings towards posters - Positive or neutral	15	28
Acceptance	5	5
Admiration	4	4
Don't really read posts from others	4	4
Helpful	3	3
No opinion	8	9
Professionalism	2	3

Table 4.10 Community and Connections Themes and Sub-Themes

4.7.1 Connections to InspireNet Members

This research study revealed that there were relationships that existed between lurkers

and other InspireNet members. It was of interest to delve deeper to determine the quantity and quality of the connections between lurkers and other online members.

Participants were first asked about how many connections they have made on InspireNet throughout their membership. All fifteen participants answered this question. Two-thirds (N=10) reported having connections to other InspireNet members, whereas the remainder (N=5) stated they had not connected with anyone. Of the two-thirds with connections, four were connected with 1-4 members, another four participants were connected to 5-10 members, and two individuals were linked to 10 or more people.

Participants were then asked to describe the nature of their connections with these members. They were given the options of co-worker, professional, acquaintance to choose from and allowed to elaborate on their answer. Six participants labelled their relationships on the professional level. Their connections with these individuals were as needed for work or projects. The quotes below illustrate this:

I mean it was [Person 3], about a research project she was doing, so just an online relationship. [Participant 3]

Episodic. I think it would be stretching it calling it a relationship. A connection...More on a consultation level. [Participant 15]

Four individuals stated their connections were on a co-worker basis. They worked with these people in their daily work setting. One person specified that her educator was an InspireNet member and influential to her joining the organization.

And I think it was one of my, the OT educators who recommended a certain webinar that was relevant to my practice. And so I joined InspireNet for that reason. [Participant 9]

Four other study participants referred to their relationships on the level of peers or colleagues. They enjoyed networking and talking with other members that shared the same

interests. These anecdotes describe how these participants felt:

And so it was working through them and being interested in similar events and opportunities for sharing research and collaborating on projects that sparked my initial interest in InspireNet. [Participant 6]

I think when it first started I recently moved back here from Ontario and so it seemed like a good way to network with colleagues and to find out what's happening in the community... so again it was a great networking process in terms of colleagues, research, people with similar interests looking for funding. [Participant 14]

Just being able to connect with other nurses, other professionals on related topics. [Participant 2]

Two individuals reported their relationships had blossomed into friendship status over their time spent as an InspireNet member.

Like within our group, you know, I've becoming like good friends with [Person 4]. [Participant 11]

Yeah, because there's a few that are friends as well as professional colleagues so I tend to connect with them more. [Participant 2]

Interestingly, it was found that seven participants had connections with core InspireNet members. As previously defined, Core members or super-users, were the smallest group of members in an online community, constituting about 1% of membership (Nielsen, 2006). They were the most active and shared much of the knowledge (Borzillo, Aznar, & Schmitt, 2011), provided social leadership, and added vitality to the community (Wenger & Snyder, 2000). Four individuals stated they joined InspireNet because they heard about the organization through or worked with core members.

I think I actually did join InspireNet before I started the Masters. Like right before because I went to a conference. So it must have been through [Person 1]. So it had to have been through that first conference and then through UVic. [Participant 11]

But anyways, I think it was really more through my network of peers... And so it was working through them and being interested in similar events and opportunities for sharing research and collaborating on projects that sparked my initial interest in InspireNet. And I think even now it probably is kind of the main reason why I continue to try to be involved. [Participant 6]

It was a few years ago that -- well a lot of it was from [Person 2], I have to say. Because she was a really key person in promoting InspireNet. [Participant 4]

Well, really it was [Person 4] and through my connections with UVic, hence. She made me aware of it and I think she invited me... She's great... You know, whenever I see InspireNet I think of [Person 5] and I think of [Person 4] in terms of, you know, I wonder what's coming down the pipe? What's new and innovative. Yeah, it's not one that I would consider removing myself from at this point. [Participant 15]

Four participants explained they participated in research studies and became more involved with InspireNet because of the influence from core members, as the quotes below illustrated:

Okay, so I learned about it from two ways. First of all from [Person 2] sent it out through the [Organization 1] network. [Participant 13]

One of the coordinators reached out to the full group and said that this is a relevant study and I encourage you to take part. [Participant 6]

It was through, if I'm recalling it correctly, through the InspireNet email about the newest newsletter and then within that was a message that, I believe it was [Person 3] who had written, "An interesting study" or something. [Participant 3]

Study participants were questioned about the frequency of interaction with these connections. Four reported occasional contact, two stated monthly, one person said weekly, and another individual said 1-2 times per year. Two people detailed that the frequency of contact was dependent on the reason. For example, project work required more frequent communication, but ceased upon completion. The quotes below outline their views:

It's dependent upon what the reason is, right? So if it's something that's got a very tight time frame, and there's pressure to complete, you will meet more frequently in a short

period of time. Versus if it's, "Hey, what do you think about this idea?" it might be once or twice. Right? [Participant 13]

They were people that I met virtually and we had a job to do and then the job was done. So they -- I don't work with them, they aren't an acquaintance, they aren't a friend. It was specific to the task at hand. [Participant 14]

In summary, two-thirds of lurkers in this study were connected to other InspireNet members and the remainder were not. Many of the connections were with core InspireNet members. These individuals were instrumental for influencing greater participation and fostering InspireNet membership. Most of the relationships were professional or collegial in nature, often sustained through similar interests.

4.7.2 Feelings Towards Posters

The literature showed that some lurkers had resentment and less respect towards posters, as they posted too much and dominated the voice of the community (Nonnecke, Preece, et al., 2004). These feelings could negatively affect how much the lurker membership wanted to participate on InspireNet. The researchers were interested to see if this was reflected in the sample of study participants. They were asked how they felt about people that posted on InspireNet and allowed to answer open ended.

Interestingly, there were no negative feelings towards posters. Sentiments ranged from neutral to positive and were as followed: no opinion (N=8) acceptance (N=5), admiration (N=4), helpful (N=3) and professional (N=2). Of the group that had no opinions, four people stated they did not read posts from others, so they had not formed any opinions towards posters. It was optimistic to see that lurkers admired people that posted. They thought posters were positively impacting InspireNet and creating greater engagement in the online community, even if that was not the way they would choose to communicate. These quotes illustrate this point:

So think it's great when people have kind of, you know, removed that barrier and using technology. Or as far as the everyday communication, I still like to pick up the

phone and I do still like to have individual engagement, you know, discussions, even if it's via e-mail. So it's great that they're putting themselves out there. I don't have any concerns based on -- nothing's ever left me thinking, "Ooh, this is an unprofessional group," not at all. [Participant 15]

I admire their engagement, finding the time, the inclination, recognizing that this may be useful for other members and sharing that. [Participant 13]

When I do see articles or post that are in the newsletter, I think it's great. I commend them and I think it's great to be keeping the community up to date. [Participant 6]

I think it's great. I mean I appreciate their sharing and their willingness to contribute to the greater good of others, really. [Participant 3]

To summarize this section, lurkers experienced no resentment towards people that posted. The study participants either had no opinion towards posters or felt they were making a positive impact for the organization.

4.7.3 Feelings Towards Lurkers

Study participants were asked about their attitudes towards lurkers. The goal was to understand what they thought of their own behaviour of not posting online. Researchers have found that both posters and lurkers did not resent this type of behaviour (Nonnecke et al., 2004). These researchers had also found that the vast majority of lurkers had no opinions on the lurking behaviour. It was of interest to find out whether this finding was mirrored in this study.

Study participants were asked, "How do you feel about members that visit the site but don't post on InspireNet?" Interestingly, none of the study participant's responses reflected any feelings of guilt or negativity towards the behaviour of lurking. Only one person stated she did not have an opinion about this. The majority of people (N=12) stated that this was an accepted behaviour. Nine of these individuals' comments reflected that there was a variety of reasons why people did not post and it should be accepted that there be a continuum of participation in the online organization. The following participant quotes highlights these findings.

Oh, you can take a horse to the water, but you can't make it drink. There's probably a number of reasons why people don't post. So for example some people they might not know how or be less inclined to because they, for whatever reason, they chose not to. Whereas other people it just might -- for myself in the last six months it wasn't relevant at that time. But I suspect it will be again, and it has been in the past. So, you know, I just recognize there's a whole spectrum of reasons why people do or do not. [Participant 13]

So yeah, people participate at different levels, and people get different things out of that. [Participant 6]

No, I mean I think people will use the media as they need it. And I know there's people that are far more engaged with it and use it far more than I ever probably will. So I think that's okay too. I think having the opportunity to link in when you need it is an important resource to have. [Participant 2]

It is a continuum of engagement, right? So, I don't think people would say anything against me because I am being passive. [Participant 10]

Also, on the theme of acceptance, six individuals' explanations acknowledged that it was a personal decision for how one elects to participate online. One should be entitled to participate online via lurking if he/she wanted to.

If you want to, you can do it. [Participant 14]

I think that if that's their preference then they're getting out of it what they choose to. [Participant 3]

I mean it is a personal choice. [Participant 10]

I think people should have the right to look at stuff without posting. [Participant 5]

In conclusion, this section focussed on how study participants felt about their own manner of participation online. The majority felt it was a suitable way of engaging in an online community and everyone should be allowed to participate in whatever means they choose.

4.7.4 Feelings about Being a Community Member

Researchers have found that lurkers thought of themselves as somewhat less of community members when compared to posters (Nonnecke et al., 2004). They found the

majority of lurkers (79%) did not consider themselves as community members, whereas only a minority of posters (26%) felt the same way. Guilt from a lack of posting had been reported as a possible reason for this. This research study aimed to find out if these findings were reflected in our sample population.

Study participants were asked if they felt like a community member on InspireNet and if so, how long that took. More than half of individuals reported feeling like community members (N=8) quickly. Of these, four stated they immediately felt welcomed in the community, whereas three took about one to three months to experience a similar feeling of belonging. Interactive activities that involved connections with other members helped to speed up this process, such as attending webinars or conferences.

Well, because I was initiated right away with project work, I would say immediately, yeah. [Participant 13]

Pretty quick. Probably after just a couple of webinars. You get some of the same people coming back, yeah. [Participant 11]

I guess right away, in the sense that when I joined the first few webinar, and asked questions, and the questions got answered or posted. [Participant 8]

I would say that approximately a month or two months, and I would say that I actually really felt like a community member at the beginning...I really felt actively engaged. [Participant 6]

Well, as soon as I joined InspireNet, I think one of the first things was the annual conference and so you're there and you really enjoy that and connecting with people and then when I was a participant in InspireNet -- a more regular participant when I was working through my research and doing some -- like doing a webinar and getting connected on conversations, you know, that might have been -- it wasn't hard once I was in it but I guess it's been harder to maintain it. [Participant 14]

Well, I'd say just going to the conference I went to made me feel like a community member... I think because that in person involvement, for me anyways, is much more significant as far as feeling belonging. [Participant 3]

I don't think it is time. It is activities. So, I mean, if I signed up for an action team and I get approved right away, right? That was a good feeling. And then if someone engaged me, asked their questions, it is those activities that makes you feel like you are

a part of the community. It is not so much about time. I mean, you can be in an action team for years, but then if there is nothing going on, then you would never feel to be part of the community. [Participant 10]

Remarkably, the feeling of being a community member did not stay consistent within some members. Four individuals reported that their feelings of community membership changed over time to become less than before (see below). For three of these people, this was due of a lack of interaction with InspireNet members, whether be it virtual or in-person.

Right now not so, because I'm -- I don't go on and look for what people are up to, so I'm not. In the beginning it was, because I joined some of the action teams and, yeah, I went to one of the meetings, yeah. At UBC, I spent a day over there, and it was fun, and connected with a few people, and I definitely found that. [Participant 10]

Often I feel like maybe right now it's also because I don't see [Person 6] any more, we're not in classes. Like she's been away. I don't see [Person 1]. I feel like I just don't see people that are in the community...as somebody who is like fully engaged in the activities, and maybe that's the a problem for myself in thinking that whenever I see kind of virtual platforms I always gauge my engagement and my role as a member in both the digital and the virtual aspects, but also in the real. I'm not a millennial, right, so I keep looking for the real world kind of community, and so in that sense I -- maybe I haven't felt as much as a member but at the same time, I'm a member in the sense that I feel like I'm up to date. [Participant 6]

I guess I sort of thought maybe that some of it would be more relevant to what I do on a day-to-day basis and so I would get more items or knowledge that I could use. But then over time it morphed into the time issue...Always hopeful that something will come across that I'm like, "Oh, that's interesting, I need to look at that." [Participant 5]

I feel like I moved away temporarily. Well, if you think of the analogy of being -- you know, living in a community, I've been away but I do still consider this particular community of practice a platform of interest to me... [Participant 15]

Six study participants reported they felt only somewhat like community members on InspireNet. They were not involved with InspireNet activities enough to feel like a true community member. The virtual environment was not permissive enough for the sense of community and connections to others to grow.

Yeah, sort of. I'm almost like a peripheral community member because I haven't been too involved. [Participant 3]

Yes and no, I guess, I mean again it's how much I engage with it determines how much I feel like a member of the community. [Participant 2]

When I'm attending a webinar, I see that my answer -- my questions were answered. You feel that yeah, people actually value my questions or my comments, if I was to put a comment about something to a webinar. But at the same time, when you said do I feel like a community, it's more -- how to put it? It's a virtual sort of platform that we just go in and out. We do our business then we leave. So it's not really -- you know, I don't think there is any much of the social or community event online that you could give you that sense of a community belonging. [Participant 8]

Finally, five members stated they did not feel like a community member on InspireNet. Reasons for this were the same as the aforementioned ones, which included not being engaged in activities, lack of interaction or connections to other members.

No, I mean, just as I said. I think there is the opportunity, I just don't take advantage of it. So, I do think that the opportunity is there, I just don't use it. So, I guess no. [Participant 4]

Well, not really because I don't think I utilize it as much. You know I don't really utilize it that way to feel like part of a member... If it's just a site that you pop into once in a blue moon while you're looking something up, you don't really feel like a member. [Participant 1]

I don't know who the people are, and I think so me to feel like part of a group, I'm not sure how much I would feel part of a group that was only ever connected online. I tend to have more of a connection with people that I can see, and if I can see them first or have a face-to-face sort of meeting with them, and then I can maintain the connection online or over email, but without the face-to-face I would find it harder to develop any sort of relationship. [Participant 12]

Well, to me it hasn't been an interactive experience. You need that interaction to breed that sense of community and make contacts. [Participant 9]

The majority of the study participants felt at least some sense of community membership. Effort was required in order to maintain this feeling of belonging, such as

spending time to engage in activities or connect with other members, be it online or in-person.

Neglect of these efforts translated to diminished or absent feelings of membership.

Chapter 5 Summary, Discussion and Conclusion

5.1 Summary and Discussion

There is limited research on lurker populations in virtual networks (Nonnecke et al., 2001). Researchers have found that lurkers are traditionally difficult to study due to their low participation rates, possibly as they are more passive. The amount of research is even scarcer in the context of health care professionals as lurkers in professional online communities of practice. This was one study aimed at better understanding the population of nurses and other health care professionals on InspireNet that exhibited lurking behaviour. Specifically, the primary investigator was interested in understanding participants' experiences, such as how they used InspireNet, why they lurked, and whether they were satisfied with remaining a lurker.

Social Network Theory (SNT) was used in this research study as the theoretical framework for guiding the approach for conducting the study and examining the collected data. SNT is classically used in quantitative research, but in this qualitative study, only its' concepts were leveraged to focus on the social connections and how these relationships could affect behaviour. This theory stresses that the relationships in one's social network could influence behaviour more than intrinsic personality traits (Ganley & Lampe, 2009). As such, the primary investigator (PI) focused the study on discovering if and how relationships impacted lurkers' behaviour on InspireNet. Interview questions were formed to understand feelings of community membership, connections to other InspireNet members (e.g. core members) and preferences for communication (e.g. email, phone calls, in person interactions). During the coding process, the PI was cognizant of collecting data pertinent to these foci. Finally, in the analysis stage, the PI reviewed and organized the data into themes, especially those that were framed in the context of social relationships. Research findings are presented below that answer the primary research

questions and these are interwoven into the SNT framework in order to understand how relationships influenced the behaviours of lurkers. As these results highlight, lurkers valued relationships with others, had feelings of community belonging, and maintained communication with others that prioritized real-time and private interactions over online posting.

Findings of this study indicate that although participants did not post on InspireNet, this did not mean they were inactive. On the contrary, they were active in many other ways. For instance, they were frequent consumers of content and attended webinars and conferences, subscribed and stayed up-to date with electronic newsletters, and shared gained knowledge with co-workers. Lurkers were interested in interdisciplinary content and knowledge that improved their clinical practice, but some complained that at times, the data on InspireNet lacked relevancy. It was hence essential for InspireNet to support lurkers' informational and information seeking needs. For example, lurkers spent a lot of time consuming content, but they had difficulty searching for information on the InspireNet website. As a work-around, they relied on the electronic newsletter to locate the data. Efforts should be made to improve on this process, such as by implementing an easy, accurate yet advanced search functionality on the website (Nonnecke & Preece, 1999) and by improving website usability. As well, InspireNet could have conducted a weekly or monthly poll to understand what topics lurkers wished to learn about for future blogs or webinars.

Participants perceived lurking as a legitimate form of participation. They felt there should be a spectrum of participation allowed in online communities, and it should be accepted that individuals have reasons for not posting online. They were satisfied with remaining a lurker, but were open to the idea of posting online. In order to post online, they needed purpose (e.g. common goal, project work, asking or answering questions), the right audience, relevant topics,

and more time as prerequisites. Most participants believed they had valuable information and expertise to contribute. InspireNet could have leveraged their expertise and at the same time, increase engagement by asking lurkers to share their research or host webinars. Online communities such as InspireNet need to respect the various forms that participation may take and cater to how lurkers choose to participate. Lurkers are an active audience primarily attracted to consuming InspireNet content, and may participate if they see a need. InspireNet should have continued to host valuable and relevant interdisciplinary content and lurkers may be more engaged and post if they wished. Electronic newsletters should have continued to be leveraged to disseminate content, as participants reported they were prompted to engage with InspireNet upon seeing this in their email. InspireNet should have also maintained regular moderation and ensure good leadership in eCoPs to keep members engaged (Andrew, Ferguson, Wilkie, Corcoran, & Simpson, 2009; Borzillo et al., 2011; Butson, Hendrick, Kidd, Brannstrom, & Hedberg, 2012; Nagy et al., 2006; Probst & Borzillo, 2008).

Lurkers preferred other ways of communicating with others instead of posting online. They considered themselves passive individuals and this type of behaviour was mirrored in their social media accounts, as many individuals preferred not to post these mediums as well. They favoured private means of communication, such as telephone, private messaging, email or in-person interactions. Real-time and more social activities like the InspireNet conferences and live webinars were enjoyed by many participants, as they allowed for richer opportunities for interactions, relationship building and discussions. As a result, lurkers' preferences for private ways of communicating indirectly influenced their behaviour, contributing to the phenomenon of a lack online posting. As such, InspireNet should not have expected that lurkers wanted to post online. Private means of communication and networking should have been supported by the

organization. For instance, private messaging capabilities could have been implemented for members' profiles. Easy to understand tutorials should have been created for members so they could update their profile with their contact information to facilitate networking (Nonnecke & Preece, 2001). These are website and eCoP design features that are necessary to improve member engagement with others.

Lurkers reported having feelings of community membership, but also that these feelings diminished over time as project work completed or opportunities for in-person contact lessened. They valued connections with other InspireNet members. For example, many participants spoke positively about their relationships with core members and how these members helped them to join and remain a member in InspireNet. Core members should be better supported and resourced so they can in turn be leveraged to sustain relationships with lurkers. Depending on the amount of funding available in an organization, core members could be financially compensated for time spent engaging with members on forums (e.g. welcoming new members, answering or facilitating questions), for posting online (e.g. Blogs), or for creating content (e.g. Webinars). As well, core members should be supported with a readily available network administrator for technical assistance. Core members, in addition to moderators, facilitators and leaders, are critical individuals responsible for content creation, credibility, moderation, and member integration (Borzillo et al., 2008). Additionally, strategies for catering to lurkers' communication preferences, such as having more webinars or in-person events (e.g. Bi-annual conferences, monthly in-person meet-ups or networking lunches) would serve to improve feelings of community. Mentoring partnerships and small group activities could also help to acclimatize lurkers to the online community and its norms (Nonnecke et al., 2006; Preece et al., 2004).

Many findings of this research study were consistent with those found in the literature. For instance, this study discovered that lurkers were avid learners, which was consistent with the findings that lurkers spent much time participating in this manner (Nonnecke & Preece, 2000) and that they enjoyed learning (Edelmann, 2013). Participants in this research study frequently read the InspireNet newsletters, participated in or attended webinars, and used many online health care resources. Many lurkers also reported as having been quite active with InspireNet at an earlier part of their membership (e.g. organizing conferences, webinars, posting). Lave and Wenger (2002) described these lurkers as fluctuating between active and passive participation, which was a normal behaviour. Moreover, this research study discovered that lurkers shared knowledge with coworkers and people in their professional network, which correlated with the literature which found that lurkers were knowledge brokers that shared information with individuals in their professional practice (Takahashi, Masakazu and Yamasaki, 2003). The literature states that lurkers are more introverted and thus less likely to post online (Nonnecke et al., 2006). This was corroborated by this study's results as some participants referred to themselves as passive and refrained from posting online to maintain privacy. Regarding lurkers as health care professionals, the literature states that nurses exhibit low participation in eCoPs as they were accustomed to in person interactions and preferred it over online communication (Andrew et al., 2009). This corresponded with findings from this research study, as participant's greatly favoured in-person and live interactions over online communication. Research results from this study also uncovered several reasons that health care professionals had for not posting online which corresponded with the literature, such as technical or usability issues, lack of time, workload and delayed response times (Brooks & Scott, 2006a; Butson et al., 2012; Cook-Craig & Sabah, 2009).

There were some new findings from this research study, which adds to the body of research for health care professionals as lurkers. As mentioned above, lurkers were open to posting online, but needed purpose, the right audience and relevant topics so as they can contribute in a meaningful way. Contrary to one study's conclusion that nurses believed eCoP participation was of minimal value as it was not clinical work (Brooks & Scott, 2006a), this research study established that health care professionals did see value in the eCoPs on InspireNet. They cherished the webinars and online resources hosted by the organization and strived to use or share these data to improve clinical practice. Many even declared their appreciation for interdisciplinary content, which was surprising as this open-mindedness contrasted to the traditional view that lurkers were selfish freeloading individuals out only to pursue their own interests. As well, the majority of health care professional lurkers in this study were seasoned knowledge explorers. They were members of numerous other online health care organizations and subscribed to various information and resources. As the volume of information was large, yet their available time was short, they became savvy consumers of knowledge, able to quickly comb through and selecting relevant data that would improve their practice. They were intelligent and utilized technology to their benefit through numerous subscriptions conveniently delivered to their email and they overcame geographic barriers by remotely attending real-time or archived webinars. Organizations such as InspireNet need to be cognizant that lurkers are advanced consumers and brokers of health care information. Their informational needs must be taken care of by ensuring that content is relevant and easily retrievable. By the same token, lurkers are also traditional in the sense that they prefer in-person or live means of communication. Organizations need to ensure there are adequate opportunities for relationship building in the real-time settings, in addition to a rich online environment, in order to foster a

thriving online community for health care professionals. Finally, in light of findings from this study that lurkers are engaged and contribute in a variety of ways, the term lurker is recommended to be replaced. More recent research has recognized that lurkers are valuable members of the online community (Cranefield et al., 2011), which is a step in the right direction, but this is not sufficient as this population is still being referred to incorrectly and this term still has nefarious connotations. The notion that these individuals just ‘lurk’ and do not post online is simplistic and incorrect. This term lurker is inappropriate as it only describes one action they do not participate in (i.e. Post online), but fails to include all the ways they participate online and offline. In many ways, the actions of lurkers mirror those of knowledge brokers. They are both involved with the consumption and sharing of knowledge and providing linkages between people. Lurkers have not been viewed in a knowledge broker role before, but with the new findings of this study, they should now be considered knowledge brokers and valued as such.

5.2 Limitations

There are some limitations to this study. Participants were primarily female, nurses, worked full-time and in a BC Health Authority, and highly-educated (i.e. Undergraduate or Postgraduate degree). All participants lived in BC and were InspireNet members for more than two years. More than half were between the ages of 40-50. Almost all participants considered their computer proficiency at the intermediate level or higher. Also, only participants that consented to this research study were included. It would be interesting to include new InspireNet members who had less than two years of membership as they might have different experiences. Many InspireNet members are from rural or remote areas, but unfortunately, none of these members participated in this study. It would be beneficial to compare their experience with those sampled in this study from more urban centers. For example, perhaps more rural nurses did not

attend any of the in-person conferences and these real-time activities were reported to be valuable to lurkers for establishing relationships, so it would be interesting to discover the types of relationships they had with other members, if any. In addition, participants may have had issues recalling their feelings or experiences with InspireNet and other members due to time and the years they have spent being a member. Nevertheless, themes common to participants did appear from the collected data.

5.3 Conclusion and Future Research Recommendations

In conclusion, this exploratory research study has been conducted on a population of lurkers who are nurses and health care professionals in an online health care community. Data has been obtained about how lurkers participate on InspireNet, why they do not post online, barriers to posting online and whether members are satisfied with remaining a lurker. The results of the study have contributed positively to and have practice and educational implications for the fields of nursing and health informatics.

This research has contributed to the body of knowledge on health care professionals as lurkers in online communities. It has also raised some questions for future research endeavours. For instance, it would have been of interest to carry out interventions (e.g. enhanced search functionality on the website, more content based on membership feedback, greater support from core members to lurkers) to improve InspireNet and study whether engagement had increased (e.g. increased webinars participation, increased online posting). It also would have been interesting to discover which articles and topics lurkers skimmed versus read fully, as some participants had stated they skimmed content at times. This information would have helped InspireNet determine how to better redirect resources to creating content that members spent

time reading. It would have likely been difficult and time consuming to obtain enough of this data from a poll. However, InspireNet could have designed their articles to show just the introduction of the article and the user would have had to click a button on the website in order to show the rest of the article. Tracking the number of times that this button was clicked for each article would allow one to determine the interest generated, as users would only click the button if they wanted to read more of it. This type of data collection might have been preferred by members that had issues regarding privacy risks, as it tracked information on InspireNet content (e.g. how many users visited the webpage and clicked to read further), rather than user data (e.g. who visited the webpage at what time). Future studies could have determined user satisfaction of InspireNet content post-implementation of this intervention.

5.4 Contributions to Nursing and Health Informatics Education

This research study has contributed a new perspective regarding the levels of participation in online communities that individuals working in Nursing and Health Informatics Education should be aware of. Lurkers are an active, yet silent, group of members in online communities. They are often engaged with (e.g. consuming or sharing) and seeking for relevant educational content that would improve their practice when time permits. Participants in this study reported they valued content the most, especially in the nursing and health informatics realm. Educators in Nursing and Health Informatics need to realize that the content they create is valued and likely reaching more people than they realize. They should take great pride in their work and continue to share their expertise in online communities, as their knowledge base is widely being used and helping to improve patient care.

5.5 Contributions to Nursing and Health Informatics Practice

This study has generated new recommendations for designing online communities of practice for health care professionals. As lurkers are eager consumers of health care information, it is important to design online communities that can accommodate their information seeking behaviours via the implementation of advanced and accurate search tools. The website should incorporate private messaging features to facilitate networking and to support lurkers preferred means of communication. This study has also contributed positive outlooks regarding lurking in online health care communities. Results from this research supports that many individuals are actively participating without posting online and this form of interaction should be accepted in virtual networks. Nurses and health informaticians who are not yet part of organizations such as InspireNet need to be aware of this legitimate form of online participation and be encouraged to join without the assumption that one must be publicly active (i.e. online posting) in order to be a valued member. They need to realize there is a wealth of information, resources and knowledgeable health care professionals they can connect with that can improve their practice.

5.6 Implications for Nursing and Health Informatics

This research study has some implications for the fields of Nursing and Health Informatics. In nursing, the perception of lurkers as inactive members of online health communities should be changed. Although they do not prefer to post, they are strong consumers of nursing and interdisciplinary content on InspireNet and other health care associations. They were active in sharing information they learned with other co-workers online and offline. This population has a great potential to be more engaged with the online community (e.g. Posting online, connecting with others, hosting webinars) or to improve patient care (e.g. Practicing or

sharing of gained knowledge), if there were improvements made to InspireNet as described in the future research section. Lurkers who are Nurses or other health professionals also have a wealth of knowledge waiting to be unlocked and shared. Utilizing a health informatics lens can serve to bring this to fruition.

Regarding health informatics, this research can be referenced to organizations interested in ensuring that their memberships' informational seeking needs are met. Numerous technical issues relating to searching for content were discovered from this research study. Improvements and interventions were discussed in the future research section that should significantly improve user experience.

Overall, this study has contributed to the body of knowledge on health care professionals as lurkers in an online community. Not much was known about lurkers before this, especially in the context of health care. This population is a vital part of the online community and responsible for the up-taking and dissemination of health care knowledge. Health care organizations, such as InspireNet, should continue creating and hosting content, as this information is being utilized by its' members. Posting online is not the only indicator of how active a membership base is, as this study has revealed multiple other ways members could be engaged. The goal should not be to convert lurkers to posters, but rather, improve on the experiences of this large population as it would ultimately benefit patient care.

References

- Andrew, N., Ferguson, D., Wilkie, G., Corcoran, T., & Simpson, L. (2009). Developing professional identity in nursing academics: the role of communities of practice. *Nurse Education Today*, 29(6), 607–11. <http://doi.org/10.1016/j.nedt.2009.01.012>
- Andrew, N., Tolson, D., & Ferguson, D. (2008). Building on Wenger: Communities of practice in nursing. *Nurse Education Today*, 28(2), 246–252. <http://doi.org/10.1016/j.nedt.2007.05.002>
- Bandura, A. (1971). *Social Learning Theory*. New York: General Learning Press.
- Barnett, S., Jones, S. C., Bennett, S., Iverson, D., & Bonney, A. (2013). Perceptions of family physician trainees and trainers regarding the usefulness of a virtual community of practice. *Journal of Medical Internet Research*, 15(5), e92. <http://doi.org/10.2196/jmir.2555>
- Borzillo, S., Aznar, S., & Schmitt, A. (2011). A journey through communities of practice: How and why members move from the periphery to the core. *European Management Journal*, 29(1), 25–42. <http://doi.org/10.1016/j.emj.2010.08.004>
- Brooks, F., & Scott, P. (2006a). Knowledge work in nursing and midwifery: an evaluation through computer-mediated communication. *International Journal of Nursing Studies*, 43(1), 83–97. <http://doi.org/10.1016/j.ijnurstu.2005.02.003>
- Brooks, F., & Scott, P. (2006b). Knowledge work in nursing and midwifery: an evaluation through computer mediated communication, 83–97. Retrieved from <http://oro.open.ac.uk/8628/>
- Butson, R., Hendrick, P., Kidd, M., Brannstrom, M., & Hedberg, M. (2012). Developing a Virtual Interdisciplinary Research Community in Clinical Education : Enticing People to the “ Tea-Room ,” 2.
- Cook-Craig, P. G., & Sabah, Y. (2009). The Role of Virtual Communities of Practice in Supporting Collaborative Learning among Social Workers. *British Journal of Social Work*, 39(4), 725–739. <http://doi.org/10.1093/bjsw/bcp048>
- Cormode, G., & Krishnamurthy, B. (2008). Key differences between Web 1.0 and Web 2.0. *First Monday*, 13(6). Retrieved from doi:<https://doi.org/10.5210/fm.v13i6.2125>
- Cranefield, J., Zealand, N., Yoong, P., & Huff, S. (2011). Beyond Lurking: The Invisible Follower-Feeder in an Online Community Ecosystem. *PACIS 2011 PROCEEDINGS*.
- Curran, J. a, Murphy, A. L., Abidi, S. S. R., Sinclair, D., & McGrath, P. J. (2009). Bridging the gap: knowledge seeking and sharing in a virtual community of emergency practice. *Evaluation & the Health Professions*, 32(3), 312–25. <http://doi.org/10.1177/0163278709338570>
- Demiris, G. (2006). The diffusion of virtual communities in health care: concepts and challenges. *Patient Education and Counseling*, 62(2), 178–88. <http://doi.org/10.1016/j.pec.2005.10.003>
- Edelmann, N. (2013). Reviewing the definitions of “lurkers” and some implications for online research. *Cyberpsychology, Behavior and Social Networking*, 16(9), 645–9. <http://doi.org/10.1089/cyber.2012.0362>
- Farzan, R., Dimicco, J. M., & Brownholtz, B. (2010). Mobilizing Lurkers with a Targeted Task. *Association for the Advancement of Artificial Intelligence*, 0–3.
- Frisch, N., Atherton, P., Borycki, E., Mickelson, G., Cordeiro, J., Novak Lauscher, H., & Black, A.

- (2014). Growing a professional network to over 3000 members in less than 4 years: evaluation of InspireNet, British Columbia's virtual nursing health services research network. *Journal of Medical Internet Research*, 16(2), e49. <http://doi.org/10.2196/jmir.3018>
- Ganley, D., & Lampe, C. (2009). The ties that bind: Social network principles in online communities. *Decision Support Systems*, 47(3), 266–274. <http://doi.org/10.1016/j.dss.2009.02.013>
- Gannon-leary, P., & Kingdom, U. (2007). Communities of Practice and virtual learning communities : benefits , barriers and success factors, 20–29.
- Golder, S. A., & Donath, J. (2004). SOCIAL ROLES IN ELECTRONIC COMMUNITIES Scott A. Golder and Judith Donath Sociable Media Group, MIT Media Laboratory, 1–25.
- Hanlis, E., Curley, J., & Abbass, P. (2009). Virtual Communities of Practice for Health Care Professionals Characteristics of a Successful Virtual, 3986–3991.
- Hara, N., & Hew, K. F. (2006). A Case Study of a Longstanding Online Community of Practice Involving Critical Care and Advanced Practice Nurses, 00(C), 1–10.
- Ho, Jarvis-Sellinger, Norman, Li, Olatunbosun, Cressman, N. (2010). Electronic Communities of Practice :, 30(2), 139–143. <http://doi.org/10.1002/chp>
- Hsieh, H.-F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15(9), 1277–1288. <http://doi.org/10.1177/1049732305276687>
- Ikioda, F., Kendall, S., Brooks, F., Liddo, A. De, & Shum, S. B. (2013). Factors That Influence Healthcare Professionals ' Online Interaction in a Virtual Community of Practice, 2013(October), 174–184.
- InspireNet. (2014). A Mature Network ' s Web 2 . 0 Experience. 4 Years' Website Use Analysis: InspireNet.ca. Retrieved from http://www.inspirenet.ca/sites/default/files/docs/InspireNet.ca_Analysis_2010-2014.pdf
- InspireNet Final Report*. (2015). Retrieved from http://www.inspirenet.ca/sites/default/files/docs/inspirenet_final_report.pdf
- Kadushin, C. (2004). Introduction to Social Network Theory. *Networks*, 63, 60. <http://doi.org/10.1007/978-1-4614-2254-9>
- Katz, J. (1998). Luring the lurkers. Retrieved from <http://news.slashdot.org/story/98/12/28/1745252/luring-the-lurkers>
- Kollock, P., & Smith, M. (1996). Managing the Virtual Commons: Cooperation and Conflict in Computer Communities. *Computer-Mediated Communication: Linguistic, Social, and Cross-Cultural Perspectives*, 39, 109–128.
- Lai, H. M., & Chen, T. T. (2014). Knowledge sharing in interest online communities: A comparison of posters and lurkers. *Computers in Human Behavior*, 35, 295–306. <http://doi.org/10.1016/j.chb.2014.02.004>
- Lave, J., & Wenger, E. (1991). Situated Learning: Legitimate Peripheral Participation. *Cambridge: Cambridge University Press.*, 2015.
- Liao, S., & Chou, E. (2012). Intention to adopt knowledge through virtual communities: posters vs lurkers. *Online Information Review*, 36(3), 442–461. <http://doi.org/10.1108/14684521211241440>
- LoBiondo-Wood, G. Haber, J. (2010). *Nursing Research in Canada: Methods, Critical Appraisal, and*

Utilization. (3rd ed.). Toronto: Elsevier.

- Morgan, D. L. (1997). Focus Groups as Qualitative Research, 32–46. <http://doi.org/10.4135/9781412984287>
- Nagy, P., Kahn, C. E., Boonn, W., Siddiqui, K., Meenan, C., Knight, N., & Safdar, N. (2006). Building virtual communities of practice. *Journal of the American College of Radiology : JACR*, 3(9), 716–20. <http://doi.org/10.1016/j.jacr.2006.06.005>
- Newman, C., Martin, E., McGarry, D. E., & Cashin, A. (2009). Survey of a videoconference community of professional development for rural and urban nurses.
- Nielsen, J. (2006). Nielsen Norman Group TRAINING CONSULTING REPORTS ARTICLES ABOUT NN / G The 90-9-1 Rule for Participation Inequality in Social Media and Online Communities Author.
- Nonnecke, B., Andrews, D., & Preece, J. (2006). Non-public and public online community participation: Needs, attitudes and behavior. *Electronic Commerce Research*, 6(1), 7–20. <http://doi.org/10.1007/s10660-006-5985-x>
- Nonnecke, B., East, K. S., & Preece, J. (2001). WHY LURKERS LURK, 1–10.
- Nonnecke, B., & Preece, J. (1999). Shedding light on lurkers in online communities. *Paper Presented at the Ethnographic Studies in Real and Virtual Environments: Inhabited Information Spaces and Connected Communities*, 24–26. <http://doi.org/10.2307/4011802>
- Nonnecke, B., & Preece, J. (2000). Lurker demographics : Counting the silent, 1–8.
- Nonnecke, B., & Preece, J. (2000). Persistence and lurkers in discussion lists: a pilot study. *Proceedings of the 33rd Annual Hawaii International Conference on System Sciences, vol.1*, 10. <http://doi.org/10.1109/HICSS.2000.926714>
- Nonnecke, B., Preece, J., & Andrews, D. (2004). What lurkers and posters think of each other, 00(C), 1–9.
- Nonnecke, B., Preece, J., Andrews, D., & Voutour, R. (2004). *Online Lurkers Tell Why*.
- Noriko, H., & Khe, F. H. (2007). Knowledge-Sharing in an Online Community of Health-care Professionals, 20(3), 235–261.
- Pavlik, J. V., & McIntosh, S. (2014). *Converging media: a new introduction to mass communication*. Oxford; New York: Oxford University Press.
- Petrovčič, A., & Petrič, G. (2014). Differences in intrapersonal and interactional empowerment between lurkers and posters in health-related online support communities. *Computers in Human Behavior*, 34, 39–48. <http://doi.org/10.1016/j.chb.2014.01.008>
- Preece, J., Nonnecke, B., & Andrews, D. (2004). The top five reasons for lurking: improving community experiences for everyone. *Computers in Human Behavior*, 20(2), 201–223. <http://doi.org/10.1016/j.chb.2003.10.015>
- Probst, G., & Borzillo, S. (2008). Why communities of practice succeed and why they fail. *European Management Journal*. <http://doi.org/10.1016/j.emj.2008.05.003>
- Richardson, B., & Cooper, N. (2003). Developing a virtual interdisciplinary research community in higher education. *Journal of Interprofessional Care*, 17(2), 173–82. <http://doi.org/10.1080/1356182031000081777>

- Sandars, J. (2007). Online communities of practice for healthcare professionals : when hype meets reality. *Health on the Internet*, 56(1), 1–10. Retrieved from http://medhealth.leeds.ac.uk/download/1440/john_sanders
- Scott, P., Brooks, F., Quick, K., Macintyre, M., & Rospopa, C. (2004). Assisted Communication in Nursing. Retrieved from <http://kmi.open.ac.uk/publications/pdf/kmi-04-9.pdf>
- Solis, B. (2007). Defining Social Media. Retrieved from <https://www.briansolis.com/2007/06/defining-social-media/>
- Soroka, V. (2004). Thesis: The Invisible People - Social and Cultural Capital and Lurking and De-lurking on the Internet.
- Soroka, V., & Rafaeli, S. (2006). Invisible participants: how cultural capital relates to lurking behavior. *Proceedings of the 15th International Conference ...*, 163–172. <http://doi.org/10.1145/1135777.1135806>
- Stevens, G., O'Donnell, V. L., & Williams, L. (2015). Public domain or private data? Developing an ethical approach to social media research in an inter-disciplinary project. *Educational Research and Evaluation*, 21(2), 154–167. <http://doi.org/10.1080/13803611.2015.1024010>
- Stewart, S. A., & Abidi, S. S. R. (2012). Applying social network analysis to understand the knowledge sharing behaviour of practitioners in a clinical online discussion forum. *Journal of Medical Internet Research*, 14(6), e170. <http://doi.org/10.2196/jmir.1982>
- Sun, N., Rau, P. P. L., & Ma, L. (2014). Understanding lurkers in online communities: A literature review. *Computers in Human Behavior*, 38, 110–117. <http://doi.org/10.1016/j.chb.2014.05.022>
- Takahashi, M., Fujimoto, M., & Yamasaki, N. (2003). The active lurker: influence of an in-house online community on its outside environment. *Group*, 1–10. <http://doi.org/10.1145/958160.958162>
- Tamjidyamcholo, A., Bin Baba, M. S., Shuib, N. L. M., & Rohani, V. A. (2014). Evaluation model for knowledge sharing in information security professional virtual community. *Computers & Security*, 43(2012), 19–34. <http://doi.org/10.1016/j.cose.2014.02.010>
- Teltzrow, M., & Kobsa, A. (2004). Impacts of User Privacy Preferences on Personalized Systems: A Comparative Study. *Designing Personalised User Experiences for ECommerce*, 1–11. http://doi.org/10.1007/1-4020-2148-8_17
- Theorieënoverzicht. (2009). Network Theory and Analysis in, 1–3.
- Van Mierlo, T. (2014). The 1% rule in four digital health social networks: an observational study. *Journal of Medical Internet Research*, 16(2), e33. <http://doi.org/10.2196/jmir.2966>
- Van Soeren, M., Devlin-Cop, S., Maude MacMillan, K., & Reeves, S. (2012). A virtual learning community for interprofessional education. *Journal of Interprofessional Care*, 26(2), 156–7. <http://doi.org/10.3109/13561820.2011.647124>
- Van Uden-Kraan, C., Drossaert, C., Taal, E., Seydel, E., & Van de Laar, M. (2008). Self - Reported Differences in Empowerment Between Lurkers and Posters in Online Patient Support Groups. *Journal of Medical Internet Research*, 10(2).
- Volkman, E. (2011). Identifying Online Communities as Self-Sustaining Ecosystems for Fulfilling Members' Needs (Master's Thesis). Retrieved from <https://search.proquest.com/openview/fb724a59f2acdf6c199186b2d85b663f/1?pq-origsite=gscholar&cbl=18750&diss=y>

Wenger, E. C., & Snyder, W. M. (2000). Communities of practice: The organizational frontier. *Harvard Business Review*, 78, 139–145. <http://doi.org/10.1177/0170840603024003909>

Wharrad, H. J., Cook, E., & Poussa, C. (2005). Putting post-registration nursing students on-line: important lessons learned. *Nurse Education Today*, 25(4), 263–71. <http://doi.org/10.1016/j.nedt.2004.12.003>

Wu, M. (2012). From Weak Ties to Strong Ties: Community vs. Social Networks 3.

Zhao, L., Lu, Y., Wang, B., Chau, P. Y. K., & Zhang, L. (2012). Cultivating the sense of belonging and motivating user participation in virtual communities: A social capital perspective. *International Journal of Information Management*, 32(6), 574–588. <http://doi.org/10.1016/j.ijinfomgt.2012.02.006>

Appendices

Appendix A: Research Questions

1. Please answer the following demographic questions:

- Gender
- Age
- Location of residence (i.e. City and province)
- Work status (i.e., full-time, part-time, casual, student, retired, unemployed)
- Highest level of education
- Occupation
- Category of work (i.e. clinical, education, research, administration)
- Institution type (i.e. BC health authority, BC educational institution, NGO, Private care, government, outside of BC)
- Length of InspireNet membership)

2. When it comes to using a computer, which level of proficiency do you consider yourself:

- | | | |
|---|---|---|
| <p><input type="checkbox"/> <i>Basic.</i>
(Examples: Word Processing, Web surfing, Email, commenting on social media, online shopping, Basic search for research, Google Scholar)</p> | <p><input type="checkbox"/> <i>Intermediate.</i>
(Examples: Mathematical/statistical/financial functions in Microsoft excel, Creating interactive PowerPoints, blogging, Boolean searches for research, Google Scholar notifications)</p> | <p><input type="checkbox"/> <i>Advanced.</i>
(Examples: Customizing template. in Office Suite, Programming or database languages (i.e. Java, C, SQL, PHP, Python), Creating macros, creating websites, advanced options when researching)</p> |
|---|---|---|

3. *What attracted you to join InspireNet originally?*
4. *Within the last 6 months, have you been *engaged with InspireNet, or have you been an inactive member?*

**Engaged means you have used InspireNet resources or participated in activities such as but not limited to: Reading newsletters or blogs or wiki; attending webinars or conferences; accessing research or membership database; conducting WebEx meetings; online classroom education/course requirement).*

Inactive means you have not engaged with any InspireNet activities or resources.

5. *What are your *goals when you engage in these activities?*

**Some examples of goals are: conversation & stories; entertainment; information and expertise; professional development; community & connections)*
6. *For each activity, approximately how often do you do them? (e.g. Daily, weekly, occasionally, monthly)*
7. *Is it straightforward to use InspireNet for browsing or posting? Why or why not?*
8. *Which social media websites do you use and do you/have you posted on them? Why or why not?*
9. *Within the last 6 months, what were your reasons for not posting or commenting on InspireNet?*
10. *In your entire InspireNet membership, have you ever posted on InspireNet before?*
11. *In the future, would you be interested in posting online on InspireNet or would you rather not? Why or why not?*

12. *Are there any factors or issues that InspireNet could help improve to make you want to post online more?*
13. *Has InspireNet or the electronic Communities of Practices (eCoPs) you joined met your expectations? Why or why not?*
14. *How much have you benefitted from being an InspireNet member?*
- More than expected*
 - As expected*
 - Less than expected*
15. *Do you feel like a community member on InspireNet? Why or why not?*
16. *If you do feel like a community member, approximately how long did it take?*
17. *What are your reasons for remaining an InspireNet member?*
18. *How do you feel about members that post on InspireNet?*
19. *How do you feel about members that visit but don't post on InspireNet?*
20. *Apart from InspireNet, do you use other resources for health care knowledge/evidence/research? If yes, which ones do you use? (e.g., Workplace guidelines/policies, other websites)*
21. *Do you apply the knowledge/information gained from InspireNet into your professional practice? Can you elaborate or give examples?*
22. *Do you tell others about InspireNet or share its resources? If yes, what are their relationships to you?*
23. **Whom have you connected or communicated with from InspireNet since you joined?*
- *Participants do not have to reveal names, but instead reveal the number of relationships.*

24. *How would you describe your relationships with these individuals? (e.g., co-worker, professional basis, acquaintance, friend).*
25. *How did you connect with them initially? (e.g., InspireNet database, conference, Webinar)*
26. *How do you connect with them now and has this changed over time? (e.g., email, phone, text, face to face)*
27. *How frequently do you interact with them? (e.g. Daily, weekly, occasionally, monthly)*
28. *Has something happened in your practice within the last 3 months that you would have liked to discuss with other InspireNet members? If yes, would you have rather discussed this in a public format, or privately?*
29. *Do you think you have useful knowledge, information, research, or comments to contribute on InspireNet?*
30. *How do you think other InspireNet members will react if you posted or commented online?.*
- Positively*
 - Neutrally*
 - Negatively*
 - No response*
31. *How did you hear about the study? May select more than one.*
- InspireNet blog*
 - emailed newsletter*
 - Facebook®*
 - Twitter®*

- *personal email*
- *Another InspireNet member*

Appendix B: Recruitment Materials:

- **Facebook®:** *Attention InspireNet members! If you have not posted on the InspireNet website in the last 6 months or more (new members with at least 1 month membership also eligible), you are invited to participate in a study entitled Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network. The purpose is to understand peripheral members better (those that don't post online), and the unknown ways they might be participating. This will help us know if membership needs are met and if services could be improved. \$25 honorarium awarded to those that participate. For more details, see: <http://>*
- **Twitter®:** *InspireNet Members that haven't posted on InspireNet in last 6 months! How do you participate? \$25 honorarium. Details here: <http://>*
- **InspireNet Blog, InspireNet Newsletter via email subscription: Invitation to Participate**

Attention InspireNet members! If you have not posted on the InspireNet website in the last 6 months or more (new members with at least 1 month membership also eligible), you are invited to participate in a study entitled Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network. You are ineligible if you have posted on InspireNet (e.g. Blog, comments, forum topic, event, or wiki). The purpose of this study is to understand the peripheral member population on InspireNet better (those that don't post online), and the unknown range of ways they might be participating. Understanding the various ways InspireNet is being utilized will help determine if membership needs are met and if services could be improved.

The research is being conducted by Tom Ying (BSc, BSN, RN), a Masters in Nursing and Health Informatics graduate student at the University of Victoria, with the support of the supervisors Noreen Frisch (PhD, FAAN, RN) and Elizabeth Borycki (PhD, RN).

Participation will be outside of your regular work hours. If you consent, your participation will include an interview (30-60 minutes in total). You will receive an Honorarium of \$25 in the form of a Gift Card if you participate.

If you are interested in participating or have further questions regarding this study, you may contact:

- Researcher: Tom Ying (BSc, BSN, RN), tomying@uvic.ca,
- School of Nursing Supervisor: Noreen Frisch, (PhD, FAAN, RN), nfrish@uvic.ca,
- School of Health Informatics Supervisor: Elizabeth Borycki, (PhD, RN), emb@uvic.ca,
- Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca), to verify the ethical approval of this study or raise any concerns you might have.

Thank you for your involvement in this important research project.

Appendix C: Letter for Research Funding

September 10, 2015.

Dear InspireNet Leadership,

I am respectfully submitting a proposal for requesting financial support for research to be conducted from September 2015 – July 2016. I am conducting this research as a graduate student (Master's degree Nursing and Health Informatics). This research study is under the supervision of Noreen Frisch (PhD, FAAN, RN) and Elizabeth Borycki (PhD, RN).

Although I am conducting this research as part of my Masters' requirements, there are large, yet to be discovered benefits for not only InspireNet, but for the future online communities of health care professionals. I believe that this research project is feasible, and will positively contribute to InspireNet's vision of utilizing research and knowledge to improve health services in British Columbia.

In this proposal, I have provided the details for conducting this research study, with regards to the background, purpose, methodology, timeline, budget, and deliverables. If you have any questions, please do not hesitate to contact me by email at: tomying@uvic.ca or phone: 778-835-5888.

Respectfully yours,

Tom Ying, BSc, BSN, RN

Background:

Although InspireNet has already conducted research to evaluate its members (i.e. membership surveys and interviews), a majority of the membership has not been responded to evaluation requests. The response rates of 10-18% from these past evaluations may not be

reflective of the opinions and needs of the entire membership database. It is suspected the 80% of the members that didn't participate in the evaluations could be attributed to what the literature refers to as peripheral members, or "lurkers" – silent members that access and consume information, but do not contribute to the discussion in a perceivable way, such as posting online (e.g. InspireNet blog, comments, forum topic, event, or wiki). There may already be adequate engagement on InspireNet but is undetectable, as online posting is only one form of visible participation. It is imperative to conduct this research to explore the experience of peripheral members, as it will uncover the unknown range of participation and any existing relationships between members. As defined in this research study, lurkers or peripheral members are InspireNet members that have not posted online in the last six months or more, or new members with at least one-month membership that have not posted on InspireNet.

In addition to creating a better understanding of the lurker population, this research may also help with determining the true social capital of InspireNet. Understanding the value of InspireNet should not only focus on the visible ways of participation (e.g., online posts), but rather, all forms of engagement from the entire membership needs to be taken into consideration. Lurkers may be contributing to InspireNet by being 'active' lurkers and sharing gained knowledge with colleagues or applying it in their practice. There may also be a wealth of valuable relationships forged through InspireNet between lurkers and other members that have yet to be discovered (i.e. weak/strong ties). If results from this study reveal that InspireNet has a high social capital, then there would be greater reason for continued funding for sustainment, or funding for a future online community for health care professionals.

There is currently a gap in knowledge on lurker populations of health care professionals in online communities. Peripheral members usually form the majority of membership for online communities (other groups being super-users, and active members). They are an important

population to study because of their sheer size, and because it is difficult to collect information on them due to issues of privacy and their elusive behaviour. Lurkers have been documented in the literature as being difficult to recruit, introverted, time scarce, and focused on reciprocity, so every effort should be made to encourage participation in this study. As it had been difficult to recruit participants in past InspireNet evaluations (evidenced by the 10-18% participation rates), there is a great need for the funding of honoraria to improve participation rates.

Purpose:

The purpose of this research project is to understand the experience of the peripheral member population on InspireNet better (those that don't post online), the unknown range of ways they might be participating, and the existing relationships between members. Understanding the various ways InspireNet is being utilized will help determine if membership needs are met and if services could be improved. Results can help to inform future implementations of online communities for health care professionals.

Method:

Inclusion Criteria: Participants are eligible if they have not posted on InspireNet for the past 6 months or if they have not posted and are a new member with more than 1 month membership.

Exclusion Criteria: Individuals are excluded if they have posted within the last 6 months on InspireNet.

Semi-structured interviews will be conducted on 10 registered InspireNet members that meet the inclusion criteria. Recruitment will be accomplished with advertising via InspireNet blog, personal email, Social Media (Facebook® and Twitter®), and emailed newsletter. Respondents that meet the inclusion criteria will be selected for virtual or phone interviews.

After informed consent is completed and returned, participants will be interviewed. Interviews will be conducted virtually or by phone and recorded via WebEx. There will be 1 interview per participant, and each will take approximately 30-60 minutes. There will be no follow-up with participants. Interviews will be transcribed, coded, and analyzed for themes and meta-themes. Findings and discussions would be created, and results may be published or presented (see deliverables section below).

Timeline:

A year has already been spent on creating the thesis proposal (Introduction, Literature review, Methods) and can be sent upon request. This research study is expected to take an additional approximately 10 months, depending on the rate of recruitment:

Item	Timeframe
Data Collection and Recruitment (Pending ethics approval)	October 2015 - January 2016
Data Analysis and coding	January – March 2016
Findings	March – May 2016
Discussion	May – July 2016

Budget:

The proposed funds of **\$1,950** will be allocated for the remaining 10 months of work as below. In addition, it would be very much appreciated if there were a stipend granted to the Masters graduate student for conducting this work. Any amount that the InspireNet Management Team deems appropriate under mandate and current budget would be highly valued. Thank you.

Item	Amount	Calculation
Stipend for Masters graduate student (Primary Researcher)	\$X	As deemed appropriate per mandate and budget
Honoraria (i.e. Starbucks gift cards)	\$250	\$25x10 Interviews
Long Distance Telephone costs (Participants may prefer phone over computer)	\$100	As per the InspireNet network manager, there should be unused prepaid minutes in the WebEx account available for long distance phone charges in this study. An extra \$100 has been estimated in case there are no available prepaid minutes.
Transcription services for interviews	\$1600	*\$4/page x 40pages (45min Interviews) x 10 Interviews *Based on previous Health Services Researcher Pathway budget, transcription services provided by https://www.allwestbc.com
Total:	\$1,950 +\$X	

Deliverables:

It is anticipated that the results of this study may possibly be shared with others in the following ways: A report for InspireNet committee, an InspireNet newsletter article or blog for the membership, a published article, or a presentation at a scholarly meeting/conference. All precautions related to maintaining confidentiality will be upheld to ensure that no participant identifying information is released.

Appendix D: Ethics Approval



University
of Victoria

Office of Research Services | Human Research Ethics Board
Administrative Services Building Rm B202 PO Box 1700 STN CSC Victoria BC V8W 2Y2 Canada
T 250-472-4545 | F 250-721-8960 | uvic.ca/research | ethics@uvic.ca

Certificate of Approval

PRINCIPAL INVESTIGATOR: Tom Ying	ETHICS PROTOCOL NUMBER 15-360
UVic STATUS: Master's Student	Minimal Risk Review - Delegated
UVic DEPARTMENT: NURS	ORIGINAL APPROVAL DATE: 17-Nov-15
SUPERVISOR: Dr. Noreen Frisch; Dr. Elizabeth Borycki	APPROVED ON: 17-Nov-15
	APPROVAL EXPIRY DATE: 16-Nov-16
PROJECT TITLE Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network	
RESEARCH TEAM MEMBER None	
DECLARED PROJECT FUNDING: InsipreNet (pending)	
CONDITIONS OF APPROVAL	
<p>This Certificate of Approval is valid for the above term provided there is no change in the protocol.</p> <p>Modifications To make any changes to the approved research procedures in your study, please submit a "Request for Modification" form. You must receive ethics approval before proceeding with your modified protocol.</p> <p>Renewals Your ethics approval must be current for the period during which you are recruiting participants or collecting data. To renew your protocol, please submit a "Request for Renewal" form before the expiry date on your certificate. You will be sent an emailed reminder prompting you to renew your protocol about six weeks before your expiry date.</p> <p>Project Closures When you have completed all data collection activities and will have no further contact with participants, please notify the Human Research Ethics Board by submitting a "Notice of Project Completion" form.</p>	
Certification	
<p>This certifies that the UVic Human Research Ethics Board has examined this research protocol and concluded that, in all respects, the proposed research meets the appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Participants.</p> <p style="text-align: center;"><i>Rachael Scarth</i></p> <p style="text-align: center;">_____ Dr. Rachael Scarth Associate Vice-President Research Operations</p>	

Certificate Issued On: 17-Nov-15

15-360 Ying, Tom



University
of Victoria

Human Research Ethics Board
Application for Research Ethics Approval for
Human Participant Research

COPY

The following application form is an institutional protocol based on the
Tri-Council Policy Statement on the Ethical Conduct for Research Involving Humans

Instructions:

1. Download this application and complete it on your computer. Hand written applications will not be accepted. You will receive a response from the HREB within 4-6 weeks.
2. Use the *Human Research Ethics Board Annotated Guidelines* to complete this application:
<http://www.uvic.ca/research/conduct/home/reqapproval/humanethics/index.php>
Note: This form is linked to the guidelines. Access links in blue text by hitting CTRL and clicking on the blue text.
3. Submit one (1) original and two (2) copies of this completed, signed application with all attachments to: Human Research Ethics, Administrative Services Building (ASB), Room B202, University of Victoria, PO Box 1700 STN CSC, Victoria BC V8W 2Y2 Canada
4. Do not staple the original copy (clips O.K.).
5. If you need assistance, contact the Human Research Ethics Assistant at (250) 472-4545 or ethics@uvic.ca
6. Please note that applications are screened and will not be entered into the review system if incomplete (e.g., missing required attachments, signatures, documents). You will be notified in this case.
7. Once approved, a Request for Annual Renewal must be completed annually for on-going projects for continuing Research Ethics approval.

A. Principal Investigator

If there is more than one Principal Investigator, provide their name(s) and contact information below in Section B, Other Investigator(s) & Research Team.

Last Name: Ying

First Name: Ho-Wang Tom

Department/Faculty: Human and Social Development UVic Email: tomying@uvic.ca

Phone:

Fax:

Mailing Address including postal code:

Title/Position: (Must have a UVic appointment or be a registered UVic student)

Faculty

Undergraduate

Ph.D. Student

Staff

Master's Student

Post-Doctoral

Adjunct or Sessional Faculty (Appointment start and end dates): _____

Students: Provide your Supervisors information:

Name: Noreen Frisch/Elizabeth Borycki

Email: nfrisch@uvic.ca/emb@uvic.ca

Department/Faculty: Nursing/Health Information Science Phone:

Graduate Students: Provide your Graduate Secretary's email address: gradnurs@uvic.ca

All PIs: Provide any additional contacts for email correspondence:

Name: Pat Atherton (InspireNet Network Manager)

Email: paterton@inspirenet.ca

FOR HUMAN RESEARCH ETHICS' USE ONLY		Protocol No. 15-360
HREB Chair Approval Signature:		Date: 17-Nov-2015
Start Date: 17-Nov-2015	Annual Renewal Due: 16-Nov-2016	Approval Expiry: 16-Nov-2016

Name:

Email:

B. Project Information

Project Title: Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network
Anticipated Start Date for Recruitment / Data Collection: September, 2015 Anticipated End Date: December, 2015.

Geographic location(s) of study: InspireNet is a virtual network based in British Columbia, Canada, but is open to all health care professionals or health related disciplines in Canada.

Keywords: 1. Electronic Community of Practice (eCoP) 2. Lurkers 3. Peripheral Members 4. Health Care Professionals

Is this application connected/associated/linked to one that has been recently submitted? Yes No
If yes, provide further information:

All Current Investigator(s) and Research Team:
(Include all current co-investigators, students, employees, volunteers, community organizations.)

Contact Name	Role in Research Project	Institutional Affiliation	Email or Phone
--------------	--------------------------	---------------------------	----------------

For Faculty Only: Any Graduate Student Research Assistants who will use the data to fulfill UVic thesis/ dissertation/ academic requirements: Include all current Graduate Student Research Assistants

Student/Research Assistant	Email or Phone
----------------------------	----------------

C. Multi-Jurisdictional Research

Does the proposed project require Research Ethics Board (REB) approval from another research ethics board(s)? Yes No

If yes, list the other research ethics board from which you or research team members have sought approval or will seek approval:

(Attach proof of having applied to other research ethics board(s). Please forward approvals upon receiving them. Be assured that UVic ethics approval may be granted prior to receipt of other research ethics board approvals.)

If you have answered "yes" above, please indicate your role in the multi-jurisdictional research project (Check all that apply):

- Recruiting participants
- Collecting data
- Analyzing data (with or without identifiers) collected by you and/or UVic research team members

- Analyzing data that *does not* contain identifiers: Data to be collected by non-UVic research team members as outlined in this application.
- Dissemination of results via publications, reports, conferences, internet, etc.
- Other (*explain*):

D. Agreement and Signatures

For further information, on signature requirements, please see the Guidelines for Signatures.

Principal Investigator and Student Supervisor affirm that:

- *I have read this application and it is complete and accurate.*
- *The research will be conducted in accordance with the University of Victoria regulations, policies and procedures governing the ethical conduct of research involving human participants and all relevant sections of the TCPS 2.*
- *The conduct of the research will not commence until ethics approval has been granted.*
- *The researcher(s) will seek further HREB review if the research protocol is modified.*
- *Adequate supervision will be provided for students and/or staff.*

Principal Investigator

Student's Supervisor or co-Supervisor (for student applicants only)

Signature

Tom Ying
Print Name

Sept
June 24, 2015
Date

Signature

NOREEN FRISCH
Print Name

Sept 28 2015
Date

Chair, Director or Dean

(To be signed by the person to whom the PI, or student's supervisor reports, and must not be the same person as the PI or student's supervisor. The Research Ethics Office cannot accept applications with duplicate signatures)

I affirm that ~~adequate~~ research infrastructure is available for the conduct and completion of this research.

Signature

Howard Bunt
Print Name

Sept 30 2015
Date

E. Project Funding

Have you applied for funding for this project? Yes No If yes, please complete the following:

Source of Project Funding	Funding Applied	Funding Approved	Project Title Used in Funding Application (or additional information)
InspireNet	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Will this project receive funding from the US *National Institutes of Health (NIH)*?

Yes No

If yes, provide further information:

If you have applied for funding, have you submitted a funding application or contract notification to the UVic Office of Research Services?

Yes No

Have you previously submitted an In-Principle Research Ethics Application for release of preparatory research funds associated with this project?

Yes No

F. Scholarly Review

What type of scholarly review has this research project undergone?

External Peer Review (*e.g., granting agency*)

Supervisory Committee or Supervisor—required for all student research projects

None

Other, please explain:

G. Other Approvals and Consultations

Do you require additional approvals or consultations from other agencies, community groups, local governments, etc.?

Yes, attached Yes, will forward as received No

(Attach proof of having made request(s) for permission, or attach approval letter(s). Please forward approvals upon receiving them. Be assured that ethics approval may be granted prior to receipt of external approvals.)

If Yes, please check all that apply:

School District, Superintendent, Principal, Teacher. Please list the school districts or schools:

- Analyzing data that *contains* identifiers: Data to be collected by non-UVic research team members as outlined in this application.
- Analyzing data that *does not* contain identifiers: Data to be collected by non-UVic research team members as outlined in this application.
- Dissemination of results via publications, reports, conferences, internet, etc.
- Other (*explain*):

D. Agreement and Signatures

For further information, on signature requirements, please see the Guidelines for Signatures.

Principal Investigator and Student Supervisor affirm that:

- *I have read this application and it is complete and accurate.*
- *The research will be conducted in accordance with the University of Victoria regulations, policies and procedures governing the ethical conduct of research involving human participants and all relevant sections of the TCPS 2.*
- *The conduct of the research will not commence until ethics approval has been granted.*
- *The researcher(s) will seek further HREB review if the research protocol is modified.*
- *Adequate supervision will be provided for students and/or staff.*

Principal Investigator

Student's Supervisor or co-Supervisor (for student applicants only)

Signature

Signature

Tom Ying

Print Name

Print Name

June 24, 2015

Date

Date

Chair, Director or Dean

(To be signed by the person to whom the PI, or student's supervisor reports, and must not be the same person as the PI or student's supervisor. The Research Ethics Office cannot accept applications with duplicate signatures)

I affirm that adequate research infrastructure is available for the conduct and completion of this research.

Signature

Print Name

Date

E. Project Funding

Have you applied for funding for this project? Yes No If yes, please complete the following:

Source of Project Funding	Funding Applied	Funding Approved	Project Title Used in Funding Application (or additional information)
InspireNet	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network <u>It is predicted that InspireNet will likely help to fund this research, that is why the consent form states it is being funded by InspireNet. A proposal for funding has been submitted, but there has been no reply yet.</u>
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Will this project receive funding from the US National Institutes of Health (NIH)?

Yes No

If yes, provide further information:

If you have applied for funding, have you submitted a funding application or contract notification to the UVic Office of Research Services?

Yes No

Have you previously submitted an In-Principle Research Ethics Application for release of preparatory research funds associated with this project?

Yes No

F. Scholarly Review

What type of scholarly review has this research project undergone?

External Peer Review (e.g., granting agency)

Supervisory Committee or Supervisor—required for all student research projects

None

Other, please explain:

Do you require additional approvals or consultations from other agencies, community groups, local governments, etc.?

- Yes, attached Yes, will forward as received No

(Attach proof of having made request(s) for permission, or attach approval letter(s). Please forward approvals upon receiving them. Be assured that ethics approval may be granted prior to receipt of external approvals.)

If Yes, please check all that apply:

- School District, Superintendent, Principal, Teacher.** Please list the school districts or schools:
- Vancouver Island Health Authority (VIHA)** if you are UVic faculty, student or staff and will be conducting minimal-risk research under the auspices of the Vancouver Island Health Authority (VIHA), involving VIHA staff, patients, health records, sites and/or recruitment through VIHA sites (including recruitment via poster placement), you must use the **Joint UVic/VIHA application form**. For above minimal risk research, please contact the UVic Research Ethics Office.
- Other regional government authority**, please explain:
- Community Group (e.g., formal organization, informal collective)**, please explain:
I have included the approval letter from InspireNet in Appendix 5
- Other Research Ethics Board (REB) Approval**, please explain:
- UVic Biosafety Committee Approval.** Attach your Biosafety Approval, or your correspondence with the Biosafety Committee, to this application. Note that Research Ethics Approval is contingent on Biosafety Approval.
- Other Approval**, please explain:

H. Researcher(s) Qualifications

In light of your research methods, the nature of the research, and the characteristics of the participants, what training, qualifications, or personal experiences do you and/or your research team have (e.g., research methods course, language proficiency, committee expertise, training on the equipment to be used)?

Research Methods course completed as per the course requirements for my Masters program

I. Research Involving Aboriginal Peoples of Canada (Including First Nations, Inuit and Métis)

The TCPS 2 (Chapter 9) highlights the importance of community engagement and respect for community customs, protocols, codes of research practice and knowledge when conducting research with Aboriginal peoples or communities. "Aboriginal peoples" includes First Nations, Inuit and Métis regardless of where they reside or whether or not their names appear on an official register. The nature and extent of community engagement should be determined jointly by the researcher and the relevant community or collective, taking into account the characteristics and protocols of the community and the nature of the research.

1. Conditions of the Research

- 1a. Will the research be conducted on (an) Aboriginal – First Nations, Inuit and Métis – lands, including reserves, Métis settlement, and lands governed under a self-government agreement or an Inuit or First Nations land claims agreement?

No

Yes, provide details:

1b. Do any of the criteria for participation include membership in an Aboriginal community, group of communities, or organization, including urban Aboriginal populations?

No

Yes, provide details:

1c. Does the research seek input from participants regarding a community's cultural heritage, artifacts, traditional knowledge or unique characteristics?

Yes

No

1d. Will Aboriginal identity or membership in an Aboriginal community be used as a variable for the purposes of analysis?

Yes

No

1e. Will the results of the research refer to Aboriginal communities, peoples, language, history or culture?

Yes

No

2. Community Engagement

2a. If you answered "yes" to questions a), b), c), d) or e), have you initiated or do you intend to initiate an engagement process with the Aboriginal collective, community or communities for this study?

Yes

No

2b. If you answered "yes" to question 2a, describe the process that you have followed or will follow with respect to community engagement. Include any documentation of consultations (*i.e. formal research agreement, letter of approval, email communications, etc.*) and the role or position of those consulted, including their names if appropriate:

3. No community consultation or engagement

If you answered "no" to question 2a, briefly describe why community engagement will not be sought and how you can conduct a study that respects Aboriginal communities and participants in the absence of community engagement.

Community engagement will not be sought because this research is not pertaining to a specific nationality or ethnicity. The research study is targeting a group of participants based on their online behaviour. From the literature review on this topic, ethnicity was not isolated as a factor for an individual's online behaviour, so I will not be requiring participants to specify this information. Aboriginal communities and participants can still participate in the research study provided they meet the inclusion criteria.

J. International Research

4. Will this study be conducted in a country other than Canada?

Yes

No

If yes, describe how the laws, customs and regulations of the host country will be addressed (*consider research Visas, local Institutional Research Ethics Board requirements, etc.*):

K. Description of Research Project

5. Purpose and Rationale of Research

Briefly describe in non-technical language:
Please use 150 words or fewer.

5a. The research objective(s) and question(s)

The purpose is to explore the behaviour of peripheral members, or lurkers (e.g. nurses, health care professionals) on InspireNet. As defined in this research study, lurkers are individuals in an online community that have not posted within the last six months. The goal is to understand their experience, such as how they are using InspireNet, why they lurk, and whether they intend on remaining a lurker. Determining their activities will reveal the nature of their relationships with the organization and members. Understanding their behaviour and intentions could identify factors that could be mitigated to improve relationships and engagement. Results would provide a clearer perspective into the types of relationships that form the InspireNet network. The three main research questions are:

1. How do lurkers use and/or interact with InspireNet?
2. What are reasons and/or barriers to lurkers not posting online?
3. Are lurkers content with remaining a lurker?

5b. The importance and contributions of the research

Lurkers or peripheral members are estimated to make up the majority of membership on InspireNet. This large lurker population of health care professionals has not yet been studied well in the literature, especially in a Canadian context. This research study will address this gap in knowledge. Little is known about them, such as how they participate/interact with the resources or members in the organization, why they lurk, and their intentions for continuing to lurk. Findings from this research would help create a better understanding of this large group of health care professionals. Results could reveal the extent of InspireNet resource utilization, connections with other members, and whether their needs are met. Issues that contribute to the lurking behaviour could potentially be identified (e.g. technological, privacy, security), and used to inform future implementations of online communities.

5c. If applicable, provide background information or details that will enable the HREB to understand the context of the study when reviewing the application.

Online participation approximately follows the 1% rule or principle of 90-9-1, where 90% are lurkers and only read, 9% are occasional or active contributors, and 1% are superusers or core members. Unlike other more vocal members of online communities (e.g. active or core members), lurkers are “invisible” for two main reasons. Since lurkers never or seldom post their opinions or feedback online, and because their readership data (i.e. cookies) is usually not collected due to privacy concerns, their activity patterns are thus undetectable – in essence, they are invisible. Lurkers are an important group to study due to their considerable size in online communities, although this does depend on the researcher’s definition of lurker, the topic of the online community, and the platform used (i.e. email based discussion list, eCoP, virtual classroom). Like other online communities, it is suspected that InspireNet has a small “core” group that is responsible for the majority of participation, whereas a much larger “peripheral” or “lurker” group exhibits low participation.

L. Recruitment

6. Recruitment and Selection of Participants

6a. Briefly describe the target population(s) for recruitment. Ensure that all participant groups are identified (e.g., group 1 - teachers, group 2 - administrators, group 3 - parents).

The study sample will be obtained from the database of registered InspireNet members from all health care related disciplines and roles (N=3960). InspireNet membership by affiliation consists of: 60% from BC Health Authorities, 25% BC Educational institutions, and 15% from other institutions (i.e. NGO, Private care, government, outside of BC). The

target sample size is ten participants, which is based on previous research conducted that explored the behaviour of lurking.

Study Sample:

Group 1 (Only 1 will be recruited) - InspireNet members from all health care related disciplines and roles.

Inclusion criteria:

The inclusion criteria will include InspireNet members that have not posted on the InspireNet website (e.g. Blog, comments, forum topic, event, or wiki) in the last six months or more. New members with at least one month membership that have not posted online are also eligible.

The six months period of not posting online is within the definition of a lurker as described in the literature review section of the thesis proposal. It does not matter whether potential participants have engaged with any InspireNet activities (e.g., newsletters, social media, webinars, database), so long as they fit the inclusion criteria as described above. InspireNet members that have posted prior to the last six months still qualify for this research study, as lurking could be a temporary and transient behaviour that members engage in. New members with memberships at least 1 month old that have not posted on InspireNet also qualify for this research study, as lurking is a way for beginners to learn about the online community prior to participating. It is assumed that all members are able to comprehend English sufficiently even if it is not their primary language, as they were able to navigate to the website and register for InspireNet membership.

Exclusion criteria:

InspireNet members that have posted content within the last six months are excluded from this research study. Members in leadership roles on InspireNet are likely excluded, such as network managers, group action leaders, co-leaders.

6b. Why is each population or group of interest?

The behaviour of interest (i.e. lurking) is done by this specific group of interest – lurkers.

6c. What are the *salient* characteristics of the participants for your study? (e.g., age, gender, race, ethnicity, class, position, etc.)? List all inclusion and exclusion criteria you are using.

Salient characteristics pertinent to the proposed research study that will be collected are: gender, age, location of residence (i.e. City and province), work status (e.g., full-time, part-time, casual, student), highest level of education, occupation, category of work (i.e. clinical, education, research, administration), institution type (i.e. BC health authority, BC educational institution, NGO, Private care, government, outside of BC), and length of InspireNet membership. Additional information that might have an influence on the lurking behaviour (e.g., technology literacy) will be collected via the interview questions.

6d. What is the desired number of participants for each group?

The target sample size is ten participants, which is based on previous research conducted that explored the behaviour of lurking (Nonnecke & Preece, 1999; Takahashi et al., 2003).

6e. Provide a detailed description of your recruitment process. Explain:

- i) List all source(s) for information used to contact potential participants (e.g., personal contacts, listserves, publicly available contact information, etc.). Clarify which sources will be used for which participant groups:

The researcher will contact potential participants from group 1 as follows:

Personal Email: The researcher will personally email all members with an invitation to participate. InspireNet members are required to list an email upon registration (mandatory field). These emails, as well as any personal information that they wish to disclose, are

stored in their online profile, located on the InspireNet database. This is a password-protected online database, which is only open to registered members. Utilizing member's emails located on this database, all members will be emailed an invitation to participate in the study. Potential participants will self-select for qualification to the study. All members, including super-users or core members, will be contacted, as even if they might not qualify for the study, they might be able to refer a fellow qualified InspireNet member to participate (See word of mouth recruitment below). Members with outdated/incorrect emails will not be able to receive the invitation.

- ii) List all methods of recruitment (e.g., in-person, by telephone, letter, snowball sampling, word-of-mouth, advertisement, etc.) If you will be using "snowball" sampling, clarify how this will proceed (i.e., will participants be asked to pass on your study information to other potential participants?). Clarify which methods will be used for which participant groups.

The researcher will recruit potential participants from group 1 with digital advertising and word of mouth:

Digital Advertisement:

InspireNet website blog: Potential participants will see the invitation to participate if they visit the blog section of the InspireNet website. Visitors to the website, or members that have not logged in may also see the invitation to participate, as the blog is not in the members only section of the website.

Emailed newsletter: The invitation to participate will be advertised on the emailed newsletter for all registered InspireNet members. All members are sent a newsletter as per their selected frequency (i.e. immediately, every hour, twice a day, daily, or weekly) to their email registered on their InspireNet account.

Facebook or Twitter: These forms of social media are used as sources for contacting potential participants only if they have subscribed to these services and are "Friends" (Facebook) or "followers" (Twitter) of InspireNet. They will not be personal messages addressed to specific individuals, but a call-out for participation to all that have subscribed. Potential participants will follow the advertised link on these services in order to see the description of the study located on the InspireNet website Blog.

Word of mouth via InspireNet members:

The invitations to participate will recommend that recipients of the invitation share it with other InspireNet members that they think may be potential qualified participants. Understanding how and if participants heard about the study via other InspireNet members will provide additional information about how members consume or share information. The participants of the study will be asked about how they found out about the study at the end of the interview.

- iii) If you will be using personal and/or private contact information to contact potential participants (as stated above), have the potential participants given permission for this, or will you use a neutral third party to assist you with recruitment? *Note that this is not a concern when public and/or business contact information is used.*

Although it may be personal emails that are used for contacting potential participants, these are the emails they have provided to InspireNet on registration. Potential participants are registered InspireNet members, so they have consented to be contacted by the InspireNet organization upon registration. Their information is available freely, as any registered InspireNet member can view other members' email and disclosed information; visitors to the website are not privileged to this information. A neutral third party will not be required for recruitment.

- iv) Who will recruit/contact participants (e.g., researcher, assistant, third party, etc.) Clarify this for each participant group.

The primary researcher will be contacting potential participants (Group 1) about the research study via email. As part of her regular responsibilities, the InspireNet Project Manager will include the invitation to participate in the research study as part of the regular emailed newsletters that all members receive. This communication will make reference to the primary investigator. The InspireNet Project Manager will also be posting the invitation to participate in the study via Facebook and Twitter.

- v) List and explain any relationship between the members of the research team (including third party recruiters or sponsors/clients of the research) and the participant(s) (e.g., acquaintances, colleagues). Complete item 7 if there is potential for a power relationship or a perceived power relationship (e.g., instructor-student, manager-employee, etc.). If you have a close relationship with potential participants (e.g., family member, friend, close colleague, etc.) clarify here the safeguards that you will put in place to mitigate any potential pressure to participate.

Primary researcher/investigator – Tom Ying, BSc, BSN, RN: I will be the primary researcher in this study. I am also the InspireNet database project assistant, and I am paid for my work of managing the database of the membership information. As part of my role as InspireNet project assistant, report to the Network Manager, and provide support to the Manager, Co-Leaders, Action Team Leaders, and members. This work includes projects related to InspireNet's website / electronic communities of practice (eCoP), database and virtual communication (WebEx). My relationships to the potential participants may be varied (i.e. acquaintances, colleagues, friends), depending on my past experiences with them from my career in nursing and health informatics, or meeting them at conferences. However, I do not know most of 4000+ registered members. As part of my role as InspireNet project assistant, I contact some members digitally from time to time regarding their incorrect or outdated email, or to help them update their online profile on InspireNet.

Research supervisor (Nursing) – Noreen Frisch, PhD, RN: Noreen is one of the co-leaders on InspireNet as part as the management team. She is also one of the team leaders in an electronic community of practice teams (e-health, e-technologies and Informatics), in addition to being of the research supervisors for this study. Her relationship to the potential participants may be colleagues or acquaintances.

Research supervisor (Health Informatics) – Elizabeth Borycki, PhD, RN: Elizabeth is one of the team leaders in an electronic community of practice teams (e-health, e-technologies and Informatics), and one of the research supervisors for this study. Her relationship to the potential participants may be colleagues or acquaintances.

Research Recruiter/Communication – Pat Atherton, BCom, MPA: Pat is the InspireNet Project Manager responsible for communications and operations for the InspireNet organization. She will help communicate the invitation to participate in this research study via emailed newsletters and social media (Facebook and Twitter). Her relationship to the potential participants may be colleagues or acquaintances.

Safeguards: To mitigate any pressures stemming from pre-established relationships for participating, I will include the following disclaimer in the informed consent:

“If you feel like your relationship with the researcher or research team may potentially affect your ability to provide unbiased responses in the interview, you should decline to participate in the research study. There will be no negative consequences to your InspireNet membership or judgment on your character by declining to participate.”

- vi) In chronological order (if possible) describe the steps in the recruitment process. (Include how you will screen potential participants where applicable). Consider where in the process permission of other bodies may be required.

Step 1. The invitation to participate will be posted on the InspireNet website Blog. It will explain the purpose of the study and list the inclusion/exclusion criteria. The primary investigator's (PI) email and contact information will be listed for potential participants to contact. Questions about the study can be posted with the 'comments' functionality of the blog (only members can see comments), or emailed to the PI. Anyone visiting the

website can see the blog post without being a member or logging in. The PI will screen all potential participants that replied, based on the inclusion/exclusion criteria.

Step 2. The invitation to participate will be included as part of the regularly emailed newsletter, which is sent to all InspireNet members. It will explain the purpose of the study and list the inclusion/exclusion criteria. The primary investigator's email and contact information will be listed for potential participants to contact. The PI will screen all potential participants that replied, based on the inclusion/exclusion criteria.

Step 3. Short posts will be made on Facebook and Twitter. They will include a link to the InspireNet website blog, where potential participants can view the purpose of the study, inclusion/exclusion criteria, and primary investigator contact information. The PI will screen all potential participants that replied, based on the inclusion/exclusion criteria.

Step 4. The primary investigator will send a personal email to all registered InspireNet members that outlines the purpose of the study, inclusion/exclusion criteria, and primary investigator contact information. The PI will screen all potential participants that replied, based on the inclusion/exclusion criteria.

Step 5. If there are not enough participants to meet the target sample size at this point, a reminder invitation to participate will be send out via emailed newsletter, Facebook/Twitter, and personal email. The PI will screen all potential participants that replied, based on the inclusion/exclusion criteria.

Step 6. The PI would have screened all potential participants based on the inclusion/exclusion criteria and sent them a consent form for which participants will return to the PI.

7. Power Relationships (Dual-Role and Power-Over)

If you are completing this section, please refer to the:
Guidelines For Ethics in Dual-Role Research for Teachers and Other Practitioners and the TCPS 2, Article 3.1 and Article 7.4.

Are you or any of your co-researchers in any way in a power relationship, including dual-roles, that could influence the voluntariness of a participant's consent? Could you or any of your co-researchers potentially be *perceived* to be in a power relationship by potential participants? *Examples of "power relationships" include teachers-students, therapists-clients, supervisors-employees and possibly researcher-relative or researcher-close friend where elements of trust or dependency could result in undue influence.*

Yes No Varies

If yes or varies, describe below:

i) The nature of the relationship:

I do not have power over the InspireNet members, as I am not in the role of a therapist, caregiver, supervisor, or consultant. However, I could be perceived to be in a dual role. I am the InspireNet database project assistant, and I am paid for my work of managing the database of the membership information. As part of my role as InspireNet project assistant, report to the Network Manager, and provide support to the Manager, Co-Leaders, Action Team Leaders, and members. I contact some members digitally from time to time regarding their incorrect or outdated email, or help them update their online profile on InspireNet. I do not make any mandatory requests to the members. My relationships to the potential participants may be varied (i.e. acquaintances, colleagues), depending on my past experiences with them from my career in nursing and health informatics, or meeting them at conferences. However, I do not know most of 4000+ registered members.

ii) Why it is necessary to conduct research with participants over whom you have a power relationship:

Since I am the InspireNet database project assistant, I have the responsibility of maintaining the database and contacting registered members from time to time. Unless I quit my current position, I may be perceived in a dual-role. However, InspireNet membership is complimentary and being a member is not a requirement for professional development or employment, so potential participants should not feel obliged to participate in the study.

- iii) What safeguards (steps) will be taken to ensure voluntariness and minimize undue influence, coercion or potential harm:
1. The researcher will provide full disclosure of all information (e.g. purpose of study, collection and protection of information) in the consent form in an easy to understand format and plain language.
 2. The researcher will provide answers to any questions from the potential participants before they sign the consent form
 3. It will be made clear that participation is voluntary, participants can withdraw from the study at any time, and they can also request to withdraw their data if they leave the study.
 4. A disclaimer for situations with pre-established relationships will be included in the informed consent: "If you feel like your relationship with the members of the research team or the InspireNet organization may potentially affect your ability to provide unbiased responses in the interview, you should decline to participate in the research study. There will be no negative consequences to your InspireNet membership or judgment on your character by declining to participate.
- iv) How will the power or dual-role relationship and associated safeguards be explained to potential participants:

The informed consent will state the following:

Researcher's Relationship with Participants

The researcher or research supervisors may have a pre-established relationship to potential participants as colleagues, professional acquaintances, or friends. The research team also has dual roles relating to InspireNet. Tom Ying is the primary researcher as well as the InspireNet database assistant; Noreen Frisch is a research supervisor as well as on the InspireNet Management Team, and an eCoP co-leader; Elizabeth Borycki is a research supervisor as well as an eCoP co-leader.

If you feel like your relationship with the members of the research team or the InspireNet organization may potentially affect your ability to provide unbiased responses in the interview, you should decline to participate in the research study. There will be no negative consequences to your InspireNet membership or judgment on your character by declining to participate.

Recruitment Materials Checklist:

Attach all documents referenced in this section (*check those that are appended*):

- Script(s) – in-person, telephone, 3rd party, e-mail, etc.
- Invitation to participate (*e.g., Psychology Research Participation System Posting*)
- Advertisement, poster, flyer
- None; please explain why (*e.g., consent form used as invitation/recruitment guide*)

M. Data Collection Methods

8. Data Collection

Use the following sections in ways best suited to explain your project. If you have more than one participant group, be sure to explain which participant group(s) will be involved in which activity/activities or method(s).

8a. Which of the following methods will be used to collect data? *Check all that apply.*

<p><input checked="" type="checkbox"/> Interviewing participants:</p> <ul style="list-style-type: none"><input type="checkbox"/> in-person<input checked="" type="checkbox"/> by telephone – Participants use their phones to dial a toll-free number, which connects to WebEx, and allows for voice recording (see below for WebEx).<input checked="" type="checkbox"/> using web-based technology (explain): WebEx is a platform from the company Cisco. It has audio and video recording functionalities, which will be used in this study. Both the participant and researcher use WebEx to connect. The participant has the option to use only audio or both audio and video to complete the interview. <p>WebEx recordings are initially stored on servers based in California, United States, but the researcher will convert and transfer the recordings to InspireNet’s Canadian servers as soon as interviews are completed, after which the original WebEx recordings will be deleted.</p> <p><input type="checkbox"/> Conducting group interviews or discussions (including focus groups) .</p>	<p><input checked="" type="checkbox"/> Attach draft interview questions</p>
<p><input type="checkbox"/> Administering a questionnaire or survey:</p> <ul style="list-style-type: none"><input type="checkbox"/> In person <input type="checkbox"/> by telephone<input type="checkbox"/> mail back <input type="checkbox"/> email<input type="checkbox"/> web-based* (see below)<input type="checkbox"/> Other, describe: <p>*If using a web program with a server located in the United States (e.g., SurveyMonkey), or if there are other reasons that the data will be stored in the US (e.g., use of US-based cloud technology, sharing data with US colleagues, etc.), you must inform participants that their responses may be accessed via the U.S. Patriot Act. Please add the following to the consent form(s):</p> <p><i>“Please be advised that this research study includes data storage in the U.S.A. As such, there is a possibility that information about you that is gathered for this research study</i></p>	<p><input type="checkbox"/> Attach questionnaire or survey:</p> <ul style="list-style-type: none"><input type="checkbox"/> standardized (one with established reliability and validity)<input type="checkbox"/> non-standardized (one that is un-tested, adapted or open-ended)

<p>may be accessed without your knowledge or consent by the U.S. government in compliance with the U.S. Patriot Act. ”</p>	<p>REVISED NOV 19 2008</p>
<p><input type="checkbox"/> Administering a computerized task (describe in 8b or attach details)</p>	
<p><input type="checkbox"/> Observing participants In 8b, describe who and what will be observed. Include where observations will take place. If applicable, forward an observational data collection sheet for review.</p>	
<p><input checked="" type="checkbox"/> Recording of participants and data using: <input checked="" type="checkbox"/> audio <input checked="" type="checkbox"/> video <input type="checkbox"/> photos or slides <input type="checkbox"/> note taking <input type="checkbox"/> flipcharts <input type="checkbox"/> data collection sheet (attach) <input type="checkbox"/> other: WebEx will be used to record audio or video for the interviews, as explained above.</p>	<p><input checked="" type="checkbox"/> Images used for analysis <input checked="" type="checkbox"/> Images used in disseminating results (include release to use participant images in consent materials) <u>Participants will be asked for consent prior to use. Images would be taken from the video content.</u></p>
<p><input type="checkbox"/> Using human samples (e.g., saliva, urine, blood, hair) Attach your Biosafety Approval, or your correspondence with the <u>Biosafety Committee</u>, to this application. Note that Research Ethics Approval is contingent on Biosafety Approval.</p>	
<p><input type="checkbox"/> Using specialized equipment/machines (e.g., ultrasound, EEG, prototypes etc.) or other. (e.g., testing instruments that are not surveys or questionnaires). Please specify:</p>	
<p><input type="checkbox"/> Using other testing equipment not captured under other categories. Please specify:</p>	
<p><input type="checkbox"/> Collecting materials supplied by, or produced by, the participants (e.g., artifacts, paintings, drawings, photos, slides, art, journals, writings, etc.) Please specify:</p>	
<p><input type="checkbox"/> Analyzing secondary data or secondary use of data (Refers to information/data that was originally gathered for a purpose other than the proposed research and is now being considered for use in research (e.g., patient or school records, personal writings, lesson plans, etc.). <input type="checkbox"/> Secondary data involving anonymized information (Information/data is stripped of identifiers by another researcher or institution before being shared with the applicant). <input type="checkbox"/> Secondary data with identifying information (Data contains names and other information that can be linked to individuals, (e.g., student report cards, employment records, meeting minutes, personal writings). <i>In item 8b describe the source of the data, who the appropriate data steward is, and explain whether (and how) consent was or will be obtained from the individuals for use of their data.</i></p>	
<p><input type="checkbox"/> Other: Please specify:</p>	

8b. Provide a sequential description of the procedures/methods to be used in your research study. Be sure to provide details for all methods checked in section 8a. Clarify which procedures/methods will be used for each participant group. Indicate which methods, if any, will be conducted in a group setting. *List all of the research instruments and interview/focus group questions, and append copies (if possible) or detailed descriptions of all instruments. If not yet finalized, provide drafts or sample items/questions.*

Semi-structured interviews will be used in this research study, with topic guide questions derived from existing research on peripheral members, also known as lurkers. See Appendix 4 for questions.

1. Interview dates and times will be scheduled with participants via email or telephone. The

REVISED
NOV 13 2015

participant will be asked about preference for either only audio, or audio and video recording for the interview. If the participant does not want to decide during this time, it will be asked again prior to the interview commencing.

2. Interviews will be conducted through WebEx for both audio/video and telephone. The researcher will host the 'meeting' on WebEx for and users can join either with computer access (for audio and/or video) or telephone.
 3. The researcher will begin the recording the interview, by using the recording feature in WebEx. It will be recorded in either only audio, or audio and video, as per the participant's preference. The researcher will begin the recording feature in audio and/or video using WebEx as per the participant's preference.
 4. The research study will be explained to participants prior to interviews commencing.
 5. The researcher will conduct the interview using the research topic guide questions.
 6. After the interview is finished, the researcher will ask for any questions.
 7. The interview finishes, participant leaves, and researcher stops the recording.
 8. Researcher converts recordings from WebEx to non-proprietary format (i.e. .mp4).
 9. Researcher transfers the converted file(s) to InspireNet's Canadian servers, and deletes the files on the WebEx servers.
- 8c. Where will participation take place for each data collection method/procedure? *Provide specific location, (e.g., UVic classroom, private residence, participant's workplace). Clarify the locations for each participant group and/or each data collection method.*

Interviews will be conducted virtually using InspireNet's web meeting platform 'WebEx', or by telephone, for those that don't have access to a computer. Those participants that opt for phone interviews will dial a toll-free number, which connects to WebEx and allows for voice recording. Virtual or telephone interviews are ideal for this population, as it negates having to meet in-person, and lowers the barriers to participation. The participant will be able to choose a convenient time and environment, which will further lower the participation barriers. Virtual interviews will be encouraged over telephone interviews, as the WebEx platform will have the added benefit of being able to record and play back the interview at a later time.

- 8d. For each method, and in total, how much time will be required of participants? *Clarify this for each participant group, each data collection method, and any other research related activities.*

It is anticipated that reading the invitation to participate, emailing to signify interest, scheduling an interview time, and completing the consent form will take 10-15 minutes. The interviews will take 30-45 minutes for either WebEx or phone interviews. A total of 40-60 minutes total will be required for each participant.

- 8e. Will participation take place during participants' office/work hours or instructional time?

No Yes. Indicate whether permission is required (e.g., from workplace supervisor, school principal, etc.) and how this will be obtained:

Data Collection Methods Checklist:

Attach all documents referenced in this section (check those that are appended. Where draft versions are appended please ensure that final versions are submitted when available. If final versions differ significantly after you have obtained Research Ethics approval, you will need to submit a Request for Modification:

Standardized Instrument(s)

- Survey(s), Questionnaire(s)
- Interview and/or Focus Group Questions
- Observation Protocols
- Other:

N. Possible Benefits, Inconveniences, and Risks of Harm to Participants

9. Benefits

Identify any potential or known benefits associated with participation and explain below.
Keep in mind that the anticipated benefits should outweigh any potential risks.

- To the participant To society To the state of knowledge

The following are potential benefits:

Participant: The participant may learn about the other resources available on InspireNet (i.e. webinars, database of members, research), which may improve professional development. He/she may be more cognizant about online posting behaviour and may be more likely to post, which may contribute to improving online engagement of the InspireNet network members.

Society: There may be societal benefits if the results of the study signify that InspireNet is a greatly used resource by health care professionals for improving professional development, regardless of the state of online postings. This may lead to continued funding for the sustainment of this organization. Findings may reveal recommendations for improving existing membership services, or for guiding future implementations of online communities for health care professionals.

State of knowledge: There is body of literature on the general lurker population, but not much is known about lurker populations of health care professionals. This research will add to the state of knowledge, which may improve future implementations of online communities (i.e. cater more towards knowledge sharing/consumption/seeking behaviours).

10. Inconveniences

Identify and describe any known or potential inconveniences to participants:
Consider all potential inconveniences, including total time devoted to the research.

The time requirement (i.e. consent process, participation time) will be the foreseeable inconveniences to participants.

11. Level of Risk

The TCPS 2 definition of "minimal risk research" is as follows:

"Research in which the probability and magnitude of possible harms implied by participation in the research is no greater than those encountered by the participant in those aspects of their everyday life that relate to the research."

Based on this definition, do you believe your research qualifies as "minimal risk research"?

- Yes it is minimal risk. No, it is not minimal risk.

Explain your answer with reference to the risks of the study and the vulnerability of the participants:

There are no foreseeable risks greater than those encountered by participants in their everyday life in this research study. Participants should not be any more vulnerable in this study than if they did not participate.

12. Estimate of Risks of Harm

Consider the inherent foreseeable risks associated with your research protocol and complete the table below by putting an X in the appropriate boxes. Be sure to take into account the vulnerability of your target population(s) if applicable:

REMOVED
NOV 12 2015

Potential Risks of Harm	Very unlikely	Possibly	Likely
i) Emotional or psychological discomfort, such as feeling demeaned or embarrassed due to the research	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Fatigue or stress	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Social risks, such as stigmatization, loss of status, privacy and/or reputation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Physical risks such as falls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Economic risk (e.g., job security, salary loss, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Risk of incidental findings (See Article 3.4 of the TCPS 2 for more information)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii) Other risks:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Possible Risks of Harm

If you indicated in Item 12 (i) to (vii) that any risks of harm are *possible* or *likely*, please explain below:

13a. What are the risks? (*i.e.*, elaborate on risks you have identified above)

The only possible risk is that participants may feel vulnerable if labeled as a "lurker", as this term has been referenced to have a negative connotation on some individuals in the literature. As a result, the sample size might be lowered, as potential participants that see this term may not agree to participate or drop out of the study.

13b. What will you do to try to minimize, mitigate, or prevent the risks?

Stigmatization/negative connotation: To prevent this from occurring, the term "lurker" will not be used in the invitation to participate, during the consent process or during data collection. Instead of the term lurker, the term "peripheral members" will be used instead in the invitations to participate and during data collection. However, to provide transparency and to avoid misleading the participants at a later time, the consent form will briefly explain that the term lurker has been used in the literature, but it would not be used in a negative manner in this research. The language used to describe this population will be phrased in a neutral way. Instead of describing participants as consuming knowledge only rather than posting online, they will be described as the peripherally participating members that participate in various unknown ways. As well, the purpose of the study will be described as a call for assistance to investigate the various ways that InspireNet is being utilized, with the goals of determining if membership needs are met and if services could be improved.

Privacy: As the WebEx recordings are initially stored in the servers in California, United States, there are privacy concerns as the data is at risk for access by the US government as outlined by the US Patriot Act. I will include a disclaimer in the consent form to make participants aware of this concern (see below), as well as deleting the files as soon as they are converted and transferred to InspireNet's Canadian servers.

"Please be advised that this research study includes data storage in the U.S.A. As such, there is a possibility that information about you that is gathered for this research study may be accessed without your knowledge or consent by the U.S. government in compliance with the U.S. Patriot Act."

REVISED
NOV 12 2015

13c. How will you respond if the harm occurs? (i.e., what is your plan?)

Stigmatization: If participants ask about whether this study is actually about lurkers, the PI will state that this population is labeled as many different terms in the literature, but this is another appropriate term. The PI will explain that the term lurker was not used primarily referenced due to the negative connotation of the term as found in the literature.

Privacy: I will assure participants that their data will be deleted from the servers in the United States as quickly as possible after conversion and transfer to InspireNet's Canadian servers.

13d. If you have indicated that there is a risk of Incidental Findings (vi) please outline your proposed protocol for information and/or action.

N/A

13e. If one or more of your participant groups could be considered vulnerable please describe any specific considerations you have built into the protocol to address this.

N/A

14. Risk to Researcher(s)

14a. Does this research study pose any risks to the researchers, assistants and data collectors?

N/A

14b. If there are any risks, explain the nature of the risks, how they will be minimized, and how you will respond if they occur.

N/A

15. Deception

Will participants be fully informed of everything that will be required of them prior to the start of the research session?

Yes

No (If no, complete the Request to Use Deception form on the ORS website)

O. Incentives, Reimbursement and Compensation

16a. Is there any incentive, monetary or otherwise, being offered for participation in the research (e.g., gifts, honorarium, course credits, etc.)

Yes

No

If yes, explain the nature of the incentive(s) and why you consider it necessary. Also consider whether the amount or nature of the incentive could be considered a form of undue inducement or affect the voluntariness of consent. Clarify which participant groups will be provided with which incentives.

A small incentive in the form of an honorarium of a \$25 gift card per individual may be provided to participants, funding permitting. The amount of this incentive is small enough to not cause any undue inducement or affect the voluntariness in any way. Offering an incentive is ideal, as the lurker population has been stated in the literature as hard to engage. They have been cited as being too busy for online posting, so by the same token, they may not be able to find time to participate in the research study. As well, lurkers operate on and value reciprocity, so offering an incentive should increase the participation rate.

REVISED
NOV 12 2015

16b. Is there any reimbursement or compensation for participating in the research (e.g., for transportation, parking, childcare, etc.)

- Yes No

If yes, explain the nature of reimbursement or compensation and why you consider it necessary. Also consider whether the amount of reimbursement or compensation could be considered a form of undue inducement or affect the voluntariness of consent. Clarify which participant groups will be provided with which kind of reimbursement or compensation.

16c. Explain what will happen to the incentives, reimbursement or compensation if participants withdraw during data collection or any time thereafter (e.g., compensation will be pro-rated, full compensation will be given, etc.)

If participants decide to withdraw during the interview or at any time thereafter, they can still keep the honorarium. The honorariums would not be retracted at any point after this.

P. Free and Informed Consent

Consent encompasses a process that begins with initial contact and continues through to the end of the research process. Consult Article 3.2 of the TCPS 2 and Appendix V of the Guidelines for further information.

17. Participant's Capacity (Competence) to Provide Free and Informed Consent

Capacity refers to the ability of prospective or actual participants to understand relevant information presented about a research project, and to appreciate the potential consequences of their decision to participate or not participate. See the TCPS 2, Chapter 3, section C, for further information.

Identify your potential participants: (Check all that apply.)

Competent	Non-Competent
<input checked="" type="checkbox"/> Competent adults <input type="checkbox"/> A protected or vulnerable population (e.g., inmates, patients)	<input type="checkbox"/> Non-competent adults: <input type="checkbox"/> Consent of family/authorized representative will be obtained <input type="checkbox"/> Assent of the participant will be obtained (note that assent of the participant is always required)
<input type="checkbox"/> Competent youth aged 13 to 18: <input type="checkbox"/> Consent of youth will be obtained and parental/guardian consent is required, due to institutional requirements (such as school districts) or due to the nature of the research (e.g., risks, etc.) <input type="checkbox"/> Consent of youth will be obtained, parents/guardians will be informed <input type="checkbox"/> Consent of youth will be obtained, parents/guardians will NOT be informed <input type="checkbox"/> Other, explain:	<input type="checkbox"/> Non-competent youth: <input type="checkbox"/> Consent of parent/guardian <input type="checkbox"/> Assent of the youth will be obtained (note that assent of the participant is always required)

<input type="checkbox"/> Competent children under 13 (<i>who are able to provide fully informed consent</i>): <input type="checkbox"/> Consent of child will be obtained and consent of parent/guardian will be obtained <input type="checkbox"/> Other, explain:	<input type="checkbox"/> Non-competent children (<i>young children and/or children with limited abilities to provide fully informed consent</i>): <input type="checkbox"/> Consent of parent/guardian <input type="checkbox"/> Assent of the child will be obtained (note that assent of the participant is always required)
---	--

18. Means of Obtaining and Documenting Consent and/or Assent:

Check all that apply, consider all of your participant groups, attach copies of relevant materials, complete item 19:

- Signed consent (*Attach consent form(s) - see template available*)
- Verbal consent (*Attach verbal consent script(s) - see template available.*)

Explain in 19 why written consent is not appropriate and how verbal consent will be documented.

- Letter of Information for **Implied** consent (*e.g., anonymous, mail back or web-based survey. Attach information letter, see template*)
- Signed or Verbal assent for non-competent participants (*Attach assent form(s), or verbal assent script(s).*)

Explain how verbal assent will be documented in 19.

- Other** means. **Explain** in 19 and provide justification.
- Consent will not be obtained. See TCPS 2 Articles 3.5 and 3.7. **Explain** in 19.
- Signed consent from the parents/guardians for youth/child participants (*Attach consent form(s).*)

Explain how parents/guardians will provide informed consent for child/youth participants in 19.

- Information** letters for the parents/guardians of youth/child participants (*Attach information letter(s)). If consent will not be obtained from parents/guardians and the parents/guardians will not be informed, explain why not in 19.*

19. Informed Consent

Describe the exact steps (chronological order) that you will follow in the process of explaining, obtaining, and documenting informed consent. Ensure that consent procedures for all participant groups are identified (e.g., group 1 - teachers, group 2 – parents, group 3 – students). Be sure to indicate when participants will first be provided with the consent materials (*e.g., prior to first meeting with the researcher?*). If consent will not be obtained, explain why not with reference to the TCPS 2 Articles 3.5 and 3.7.

There is only 1 group. Tom Ying, the primary investigator, will be involved with the process of obtaining informed consent.

1. **Prior to consenting to participate in the study, potential participants will be informed by Tom Ying (verbally and written) about the purpose of the study, the study procedures, confidentiality and privacy implications, the study's risks and benefits, voluntary participation, and their right to refuse or withdraw from the study at any time.**
2. **The consent will be included in direct email communication, and sent to participants prior to scheduling interviews.**
3. **The consent forms will have to be emailed back to the researcher to ensure that they are completed correctly.**
4. **For each participant, the researcher will ensure that they have completed and returned their consent forms prior to commencing interviews.**
5. **The study will be explained again prior to the start of the interviews.**

20. Ongoing Consent

Article 3.3 of the TCPS 2 states that consent shall be maintained throughout the research project. Complete this section if the research involves interacting with participants over multiple occasions (including review of transcripts, etc.), has multiple data collection activities, and/ or occurs over an extended period of time.

20a. Will your research occur over multiple occasions or an extended period of time (including review of transcripts)?

Yes

No

20b. If yes, describe how you will obtain and document ongoing consent. If consent procedures differ for each group or activity, please clarify each group or activity that you are referring to.

21. Participant's Right to Withdraw

Article 3.1 of the TCPS2 states that participants have the right to withdraw at any time and can withdraw their data and human biological materials.

Describe what participants will be told about their right to withdraw from the research at any time (i.e., who to contact and how). If compensation is involved, explain what participants will be told about compensation if they withdraw. If you have different participant groups and/or different data collection methods, clarify the different procedures for withdrawing as necessary.

Participants will be told they can withdraw from the study at any point up until the study is published or thesis completed (i.e. they will not be contacted for any follow up). Participants can contact Tom Ying by email at tomying@uvic.ca, or by phone at 778-835-5888 to withdraw participation from the study. They will be told they can keep the honorarium as long as they have completed the interviews will still be allowed to keep the honorarium and it would not be retracted at any point.

22. What will happen to a person's data if s/he withdraws part way through the study or after the data have been collected/submitted? If applicable, include information about visual data such as photos or videos. If you have different participant groups and/or different data collection methods, clarify the different procedures for withdrawing as necessary. Ensure this information is included in the consent documents.

Participant will be asked if he/she agrees to the use of his/her data. Describe how this agreement will be documented:

The participant's data can be withdrawn from the study at any point until the study is published, provided he/she has consented to waiving confidentiality, as then their data can be identified and removed. The participant will be asked their data (i.e. photos, audio, and video) can still be used, and be given the option to have their data de-identified.

If the participant has not consented to waiving confidentiality (i.e. data is de-identified and anonymous) and decides to withdraw, he/she would have to contact the researcher as soon as possible, as it may otherwise be logistically impossible to remove the their transcribed data (see below). He/she will then be asked whether their data (i.e. transcribed data, audio, video or photos) can still be used for the analysis/dissemination of results in the research study. The informed consent will state this. Their decision to withdraw from the study and/or have their data withdrawn will be documented in the field notes or consent log.

It will not be used in the analysis and will be destroyed.

It is logistically impossible to remove individual participant data (e.g., anonymously submitted data).

If the researcher is not notified about this soon after the interview is completed about withdrawing data and the participant has not consented to waiving confidentiality, any data collected will be de-identified, transcribed and included in the analysis and can't be withdrawn. Data will be de-identified and made anonymous soon after the interview, so it

will logistically be impossible to remove the individual's data. However, the researcher can still ensure that multimedia (i.e. photo, audio and video data) is not be used for the dissemination of results – the participants will be asked whether multimedia can still be used when they withdraw. The informed consent will state this.

- When linked to group data (e.g., focus group discussions), it will be used in summarized form with no identifying information.

Free and Informed Consent Checklist:

Attach all documents referenced in this section (check those that are appended):

- Consent and Assent Form(s) – Include forms for all participant groups and data gathering methods
- Letter(s) of Information for Implied Consent
- Verbal Consent and Assent Scripts

Q. Anonymity and Confidentiality

23. Anonymity

Anonymity means that no one, including the principal investigator, is able to associate responses or other data with individual participants.

23a. Will the participants be anonymous in the data gathering phase of research?

- Yes No

23b. Will the participants be anonymous in the dissemination of results (be sure to consider use of video, photos)?

- Yes
- Maybe. Explain below. _____
- No. If anonymity will not be protected and you plan to identify all participants with their data, provide the rationale below.

Participants will have the option to consent to waiving their confidentiality on the consent form. They may choose to waive confidentiality to be identified/credited in the results, waive confidentiality for photos, audio and video to be identified by name in the results, and waive confidentiality to have responses associated with their name. For the case that participants consent for photos, audio and video to be disseminated for results, but they do not waive confidentiality to have their names identified with this media, there is a disclaimer in the consent portion to make them aware that, “*Even if no names are used, you may be recognizable if visual media are shown in the results.”

24. Confidentiality

Confidentiality means the protection of the person's identity (anonymity) and the protection, access, control and security of his or her data and personal information during the recruitment, data collection, reporting of findings, dissemination of data (if relevant) and after the study is completed (e.g., storage). The ethical duty of confidentiality refers to the obligation of an individual or organization to safeguard entrusted information. The ethical duty of confidentiality includes obligations to protect information from unauthorized access, use, disclosure, modification, loss or theft.

24a. Are there any limits to protecting the confidentiality of participants?

- No, confidentiality of participants and their data will be completely protected
- Yes, there are some limits to the researcher's ability to protect the confidentiality of participants (Check relevant boxes below.)

REVISED
NOV 13 2015

- Limits due to the nature of group activities (e.g., focus groups): The researcher cannot guarantee confidentiality
- Limits due to context: The nature or size of the sample from which participants are drawn makes it possible to identify individual participants (e.g., school principals in a small town, position within an organization)
- Limits due to selection: The procedures for recruiting or selecting participants may compromise the confidentiality of participants (e.g., participants are identified or referred to the study by a person outside the research team)
- Limits due to legal requirements for reporting (e.g., legal or professional)
- Limits due to local legislation such as the U.S.A. Patriot Act (e.g., when there will be data storage in the United States). When using USA based data instruments and data storage systems researchers are responsible for determining if this applies.
- Other:

24b. If confidentiality will be protected, describe the procedures to be used to ensure the anonymity of participants and for preserving the confidentiality of their data (e.g., pseudonyms, changing identifying information and features, coding sheet, etc.) If you will use different procedures for different participant groups and/or different data methods be sure to clarify each procedure.

If participants have not consented to waiving confidentiality, audio-interviews will be transcribed using pseudonyms as identifiers, such as "person 1, person 2, etc." In the unlikely scenario that the individual is recognizable from their transcript, these transcripts will not be published. Tom Ying, the primary contact and researcher of this study, is also a registered nurse and Master's student, and he has signed a confidentiality agreement.

24c. If there are limits to confidentiality indicated in section 24a. above, explain what the limits are and how you will address them with the participants. If there are different procedures for different participant groups and/or different data collection methods, be sure to clarify each procedure.

R. Use and Disposal of Data

25. Use(s) of Data

25a. What use(s) will be made of all types of data collected (field notes, photos, videos, audiotapes, transcripts, etc.)?

Collected data (i.e. audio and/or photos, and video) will be used for field notes, logs, and transcripts.

25b. Will your research data be analyzed, now or in future, by yourself for purposes other than this research project?

Yes No Possibly

25c. If yes or possibly, indicate what purposes you plan for this data and how will you obtain consent for future data analysis from the participants (e.g., request future use in current consent form)?

25d. Will your research data be analyzed, now or in future, by other persons for purposes other than explained in this application?

Yes No. Possibly

25e. If yes or possibly:

- i) Indicate whether the data will contain identifiers when it is provided to the other researchers or whether it will be fully anonymous (*note that "fully anonymous" means that there is no identifying information, links, keys, or codes that allow the data to be re-identified*).
- ii) How will you obtain consent from the participants for future data analysis by other researchers? (*If the data will be transferred in fully anonymous form, this request for future use can be made in the current consent form. If the data will contain identifiers or links/keys/codes for re-identification, consider requesting permission to contact the participants in the future, to obtain consent for the use of the data at that time*).

26. Commercial Purposes

26a. Do you anticipate that this research will be used for a commercial purpose?

Yes No

26b. If yes, explain how the data will be used for a commercial purpose:

26c. If yes, indicate if and how participants will benefit from commercialization.

27. Maintenance and Disposal of Data

Describe your plans for protecting data during the project, and for preserving, archiving, or destroying all the types of data associated with the research (*e.g., paper records, audio or visual recordings, electronic recordings, coded data*) after the research is completed:

27a. means of storing and securing data (*e.g., encryption, password protected computer files, locked cabinet, separation of key codes from raw data etc.*):

Audio/video recordings and coded data will be encrypted, password-protected, and stored in a computer with strong password access.

27b. location of storing data (*include location of data-storage servers if using web-based technology*):

Data Recorded interviews (i.e. Audio or video) will be stored on InspireNet's Canadian servers for the duration that the InspireNet organization stays in existence (i.e. InspireNet has a proposed end date of May 31, 2016 due to funding issues) (see below for duration). Access to InspireNet will only be given to the researcher and the InspireNet Network manager, and protected with a strong password. Research related data/files (e.g. transcriptions, results) will also be encrypted and stored on a strong password protected computer used by the researcher, located in Vancouver, BC, and also backed-up on an encrypted USB drive. Should the InspireNet organization cease to exist within the 5 years timeline (i.e. no access to Canadian based servers), the recorded interviews will be downloaded and stored locally on this same computer with the same security and privacy measures.

27c. duration of data storage (*if data will be kept indefinitely, explain why this is necessary and state whether the data will contain identifiers or links to identifiers*):

Digital audio and video Recorded interviews (i.e. Audio or video) will be stored for 5 years from the time they were created, and deleted after this time. This data is stored on InspireNets' Canadian servers to comply with the Freedom of Information and Protection of

Privacy Act (FIPPA) legislation that research data must be stored and accessed in Canada
These recordings may contain identifiers as the interviewer will be calling the participant
by first name, and one of the interview questions asks about demographic information.

- 27d. methods of destroying or archiving data. If archiving data, please describe measures to secure or protect the data. If the archiving will involve a third party (e.g., library, community agency, Aboriginal band, etc.) please provide details:

~~Digital audio and video files~~ Recorded interviews (i.e. Audio or video) will be deleted from the computers and servers.

REVISED

NOV 12 2015

28. Dissemination

How do you anticipate disseminating the research results? (Check all that apply)

- Thesis/Dissertation/Class presentation
- Presentations at scholarly meetings Published article, chapter or book
- Internet (Students: Most UVic Theses are posted on "UVicSpace" and can be accessed by the public)
- Media (e.g., newspaper, radio, TV)
- Directly to participants and/or groups involved. Indicate how: (e.g., report, executive summary, newsletter, information session): **A report may be created to outline the results of the study to InspireNet Management Team, an InspireNet newsletter or blog may be created to share the results of the study with the membership. The thesis will be posted on UVicSpace. All precautions related to maintaining confidentiality will be upheld to ensure that no participant identifying information is released.**
- Other, explain:

S. Conflict of Interest

- 29a. Apart from a declared dual-role relationship (Section K, item 7), are you or any of the research team members in a perceived, actual or potential conflict of interest regarding this research project (e.g., partners in research, private interests in companies or other entities)?

Yes No

- 29b. If yes, please provide details of the conflict and how you propose to manage it:
-

Attachments*



*Ensure that all applicable attachments are included with all copies of your application. Incomplete applications will not be entered into the review system. You will be notified in this case.

Information for Submission

- Applications may be printed and submitted double-sided
- Do **not** staple the original application with original signatures (clips O.K.)
- The two photocopies may be individually stapled or clipped
- Do **not** staple or clip the individual appendices

Title and label attachments as Appendix 1, 2, 3 etc. and attach the following documents (check those that are appended):

Section I - Recruitment Materials:

- Script – Personal Email script for recruitment (directly emailed to InspireNet members)
- Invitation to participate - InspireNet newsletter via email subscription, InspireNet Blog

Appendix 1 (for script and Invitation to participate)

- Advertisements – Social Media (i.e. Facebook, Twitter) - **Appendix 2**

Section J - Data Collection Methods:

- Standardized Instrument(s)
- Survey(s), Questionnaire(s)
- Interview Questions - **Appendix 3**
- Observation Protocols
- Other:

Section M - Free and Informed Consent:

- Consent Form - **Appendix 4**
- Assent Form(s)
- Letter(s) of Information for Implied Consent
- Verbal Consent Script

- Approval from external organizations – Letter from InspireNet - **Appendix 5**
- Permission to gain access to confidential documents or materials
- Request to Use Deception form
- Biosafety Committee Approval
- Other, please describe:

Appendix 1: Personal Email script for recruitment (directly emailed to InspireNet members), InspireNet newsletter via email subscription, InspireNet Blog

Invitation to Participate

REVISED

NOV 12 2015

Attention InspireNet members! If you have not posted on the InspireNet website in the last 6 months or more (new members with at least 1 month membership also eligible), you are invited to participate in a study entitled **Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network**. You are ineligible if you have posted on InspireNet (e.g. Blog, comments, forum topic, event, or wiki). The purpose of this study is to understand the peripheral member population on InspireNet better (those that don't post online), and the unknown range of ways they might be participating. Understanding the various ways InspireNet is being utilized will help determine if membership needs are met and if services could be improved.

The research is being conducted by Tom Ying (BSc, BSN, RN), a Masters in Nursing and Health Informatics graduate student at the University of Victoria, with the support of the supervisors Noreen Frisch (PhD, FAAN, RN) and Elizabeth Borycki (PhD, RN).

Participation will be outside of your regular work hours. If you consent, your participation will include an interview (30-60 minutes in total). You will receive an Honorarium of \$25 in the form of a Gift Card if you participate.

If you are interested in participating or have further questions regarding this study, you may contact:

- *Tom Ying* (BSc, BSN, RN, principal investigator of the study) by email to: tomying@uvic.ca or phone:
- *Noreen Frisch* (PhD, FAAN, RN, Supervisor of the study) by email to: nfrisch@uvic.ca or phone:
- *Elizabeth Borycki* (PhD, RN, Supervisor of the study) by email to: emb@uvic.ca or phone:
- *Human Research Ethics Office* at the University of Victoria to verify the ethical approval of this study or raise any concerns you might have by email to: ethics@uvic.ca or phone: 250-472-4545

Thank you for your involvement in this important research project.

Appendix 2: Advertisement – Social Media

Facebook: Attention InspireNet members! If you have not posted on the InspireNet website in the last 6 months or more (new members with at least 1 month membership also eligible), you are invited to participate in a study entitled **Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network**. The purpose is to understand peripheral members better (those that don't post online), and the unknown ways they might be participating. This will help us know if membership needs are met and if services could be improved. \$25 gift card awarded to those that participate! If you wish to participate, please message me privately to ensure confidentiality and do not comment here.

For more details, see: http://_____

Twitter: InspireNet Members that haven't posted on InspireNet in last 6 months! How do you participate? \$25 Gift card. – PM me. Details here: http://_____

Appendix 3 - Interview Questions

1. Please answer the following demographic questions:

- Gender
- Age
- Location of residence (i.e. City and province)
- Work status (i.e., full-time, part-time, casual, student, retired, unemployed)
- Highest level of education
- Occupation
- Category of work (i.e. clinical, education, research, administration)
- Institution type (i.e. BC health authority, BC educational institution, NGO, Private care, government, outside of BC)
- Length of InspireNet membership)

2. When it comes to using a computer, which level of proficiency do you consider yourself:

Basic.
(Examples: Word Processing, Web surfing, Email, commenting on social media, online shopping, Basic search for research, Google Scholar)

Intermediate.
(Examples: Mathematical/statistical/financial functions in Microsoft excel, Creating interactive PowerPoints, blogging, Boolean searches for research, Google Scholar notifications)

Advanced.
(Examples: Customizing templates in Office Suite, Programming or database languages (i.e. Java, C, SQL, PHP, Python), Creating macros, creating websites, advanced option when researching)

3. What attracted you to join InspireNet originally?
4. Within the last 6 months, have you been *engaged with InspireNet, or have you been an inactive member?

*Engaged means you have used InspireNet resources or participated in activities such as but not limited to: Reading newsletters or blogs or wiki; attending webinars or conferences; accessing research or membership database; conducting WebEx meetings; online classroom education/course requirement).

Inactive means you have not engaged with any InspireNet activities or resources.

5. What are your *goals when you engage in these activities?
*Some examples of goals are: conversation & stories; entertainment; information and expertise; professional development; community & connections)
6. For each activity, approximately how often do you do them? (e.g. Daily, weekly, occasionally, monthly)
7. Is it straightforward to use InspireNet for browsing or posting? Why or why not?
8. Which social media websites do you use and do you/have you posted on them? Why or why not?
9. Within the last 6 months, what were your reasons for not posting or commenting on InspireNet?
10. In your entire InspireNet membership, have you ever posted on InspireNet before?
11. In the future, would you be interested in posting online on InspireNet or would you rather not?
Why or why not?
12. Are there any factors or issues that InspireNet could help improve to make you want to post online more?
13. Has InspireNet or the electronic Communities of Practices (eCoPs) you joined met your expectations? Why or why not?
14. How much have you benefitted from being an InspireNet member?
 - More than expected
 - As expected
 - Less than expected
15. Do you feel like a community member on InspireNet? Why or why not?
16. If you do feel like a community member, approximately how long did it take?
17. What are your reasons for remaining an InspireNet member?

18. How do you feel about members that post on InspireNet?
19. How do you feel about members that visit but don't post on InspireNet?
20. Apart from InspireNet, do you use other resources for health care knowledge/evidence/research?
If yes, which ones do you use? (e.g., Workplace guidelines/policies, other websites)
21. Do you apply the knowledge/information gained from InspireNet into your professional practice?
Can you elaborate or give examples?
22. Do you tell others about InspireNet or share its resources? If yes, what are their relationships to you?
23. *Whom have you connected or communicated with from InspireNet since you joined?
*Participants do not have to reveal names, but instead reveal the number of relationships.
24. How would you describe your relationships with these individuals? (e.g., co-worker, professional basis, acquaintance, friend).
25. How did you connect with them initially? (e.g., InspireNet database, conference, Webinar)
26. How do you connect with them now and has this changed over time? (e.g., email, phone, text, face to face)
27. How frequently do you interact with them? (e.g. Daily, weekly, occasionally, monthly)
28. Has something happened in your practice within the last 3 months that you would have liked to discuss with other InspireNet members? If yes, would you have rather discussed this in a public format, or privately?
29. Do you think you have useful knowledge, information, research, or comments to contribute on InspireNet?
30. How do you think other InspireNet members will react if you posted or commented online?.
- Positively
 - Neutrally
 - Negatively
 - No response
31. How did you hear about the study? May select more than one.
- InspireNet blog
 - emailed newsletter
 - Facebook
 - Twitter
 - personal email

- Another InspireNet member

Appendix 4 - Consent Form



**University
of Victoria**

Participant Consent Form

REVISED

NOV 12 2015

Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network

You are invited to participate in a study entitled '**Exploring Peripheral Member Engagement in a Virtual Health Care Professionals' Network**' that is being conducted by Tom Ying (BSc, BSN, RN).

Tom Ying is a graduate student in the department of Human and Social Development at the University of Victoria and you may contact him if you have further questions by email to: tomying@uvic.ca, or phone:

As a graduate student, I am required to conduct research as part of the requirements for a Masters degree Nursing and Health Informatics. It is being conducted under the supervision of Noreen Frisch (PhD, FAAN, RN) and Elizabeth Borycki (PhD, RN). You may contact my supervisors at 250-
, respectively.

This research is being partially being funded by InspireNet, as part of the Michael Smith Foundation for Health Research (MSFHR).

Purpose and Objectives

The purpose of this research project is to understand the peripheral member population on InspireNet better (those that don't post online), and the unknown range of ways they might be participating. Understanding the various ways InspireNet is being utilized will help determine if membership needs are met and if services could be improved.

Importance of this Research

Research of this type is important because little is known about the peripheral member populations of health care professionals in virtual networks. Your contribution as a participant would add to this growing body of knowledge.

Participants Selection

You are being asked to participate in this study because you have responded and expressed interest to participate in this research study. You meet the inclusion criteria of not having posted on the InspireNet website in the last 6 months or more, or are a new InspireNet member that has at least 1 month membership and has not posted on the InspireNet website.

What is involved

If you consent to voluntarily participate in this research, your participation will include one semi-structured, personal interview that should last approximately 30-60 minutes. It will be scheduled as per your convenience, and the interview will be held either virtually or by phone.

With your permission, the interview will be recorded in either only audio, or audio and video (See permission for visual data below). The researcher will also record written notes. A transcription of the interview will be made for data analysis.

Please be advised that recorded data from your interview about you that is gathered for in this research study (see below) is initially stored in the U.S. as it uses a U.S. based online program located in the U.S. As such, there is a possibility that information about you may be accessed without your knowledge or consent by the U.S. government in compliance with the U.S. Patriot Act. This information will only be stored in the U.S. for a short period of time, and will be deleted as soon as it is transferred to the InspireNets' Canadian servers.

Potentially identifiable data that may be collected are: Work status (i.e. FT, PT, casual, student), highest level of education, occupation, category of work (i.e. clinical, education, research, administration), institution type (i.e. BC health authority, BC educational institution, NGO, Private care, government, outside of BC), length of InspireNet membership).

Inconvenience

Participation in this study may cause some inconvenience to you, including the time required for scheduling and participating in the interview.

Risks

There are no known or anticipated risks to you by participating in this research. However, we wish to inform you that the population in this study – 'Peripheral Members' – has been referenced in the literature as "lurkers" as well. Although this term may have a negative connotation to it, please be assured that this should this term be referenced in this study (e.g. results, published material), it will not be used in a negative manner. In this study, we hold that peripheral members behave in various justified and unknown ways with the virtual network.

Benefits

The potential benefits of your participation in this research include:

Participant: The participant may learn about the other resources available on InspireNet, which may improve professional development. He/she may be more cognizant about online posting behaviour and may be more likely to post, which may contribute to improving online engagement of the InspireNet network members.

Society: There may be societal benefits if the results of the study signify that InspireNet is a greatly used resource by health care professionals for improving professional development, regardless of the state of online postings. This may lead to continued funding for the sustainment of this organization. Findings may reveal recommendations for improving existing membership services, or for guiding future implementations of online communities for health care professionals.

State of knowledge: There is body of literature on the general lurker population, but not much is known about lurker populations of health care professionals. This research will add to the state of knowledge, which may improve future implementations of online communities (i.e. cater more towards knowledge sharing/consumption/seeking behaviours).

Compensation

As a way to compensate you for any inconvenience related to your participation, you will be given a ~~\$20~~\$25 honorarium in the form of a gift card. If you consent to participate in this study, this form of compensation to you must not be coercive. It is unethical to provide undue compensation or inducements to research participants. If you would not participate if the compensation were not offered, then you should decline.

Voluntary Participation

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any point up until the study is published or thesis completed without any consequences or any explanation (i.e. you will not be contacted for any follow up). If you decide to withdraw **part way** through the study (i.e. during the interview) or **immediately after** the interview, you will be asked whether your data (including pictures, audio, and videos) can still be used for the research study; ~~provided it's~~ you would have the option to have your data de-identified and

anonymous and you will be asked if photos, audio or video could be used. If you did NOT consent to waiving confidentiality (i.e. data is de-identified and anonymous), your data will be transcribed and included in the analysis and it will logistically be impossible to it from the study, unless the researcher is notified about withdrawal of data soon after the interview is completed. Should you choose, multimedia data (i.e. Photos, audio, and video) can still be removed from the research study.

However, if you consent to waiving confidentiality (see below), then your data can be identified and removed at any time up until the results of the study is published. and can't be withdrawn. Data will be de-identified and made anonymous soon after the interview, so it will logistically be impossible to remove your data
Provided you have completed

If you withdraw from the interview at any point, or if you want your data withdrawn from the study, if you or your data is withdrawn from the study you will still be able to keep your compensation. Please contact Tom Ying by email at tomying@uvic.ca, or by phone at 778-835-5888 to withdraw participation and/or data from the study.

Researcher's Relationship with Participants

The researcher or research supervisors may have a pre-established relationship to potential participants as colleagues, professional acquaintances, or friends. The research team also has dual roles relating to InspireNet. Tom Ying is the primary researcher as well as the InspireNet database assistant; Noreen Frisch is a research supervisor as well as on the InspireNet Management Team, and an electronic Community of Practice (eCoP) co-leader; Elizabeth Borycki is a research supervisor as well as an eCoP co-leader.

If you feel like your relationship with the members of the research team or the InspireNet organization may potentially affect your ability to provide unbiased responses in the interview, you should decline to participate in the research study. There will be no negative consequences to your InspireNet membership or judgment on your character by declining to participate.

Anonymity

Unless you consent to waiving your confidentiality in this study (see below), then every effort will be made to ensure anonymity. In terms of protecting your anonymity, audio If you do not consent to waiving confidentiality, interviews will be transcribed using pseudonyms as identifiers, such as "person 1, person 2, etc." In the unlikely scenario that the individual is recognizable from their transcript, these transcripts will not be published. Video Interview data (i.e. audio, photos, or video) will not be shared or used for future research studies. Audio/video recordings and coded data will be stored in a computer with strong password access and files will be password protected. Recorded interviews will be stored on InspireNet's Canadian servers for 5 years from the time they were created, and deleted after this time (See disposal of data below) to maintain compliance with FIPPA.

Confidentiality

Your confidentiality and the confidentiality of the data will be protected by storage, access, and security measures. As soon as interviews are completed, the recordings will be converted in a non-proprietary format (i.e. .mp4) and subsequently deleted from U.S servers. The new files would then be transferred to the InspireNet servers in Canada (accessible only by the primary researcher and InspireNet network manager) and on the researcher's computer located in Vancouver BC. The researcher will have a strong password to his InspireNet account, as well as on his desktop computer for to ensure confidentiality and security. The recorded interview files will also be downloaded to an encrypted memory stick for backup, in addition to being archived stored on InspireNets' Canadian servers to comply with the Freedom of Information and Protection of Privacy Act (FIPPA) legislation that research data must be stored and accessed in Canada. The recorded

interviews and research data will not be archived or used for any future research by other researchers (See disposal of data below).

Dissemination of Results

It is anticipated that the results of this study may possibly be shared with others in the following ways: A report for InspireNet committee, an InspireNet newsletter article or blog for the membership, a published article, or a presentation at a scholarly meeting/conference. All precautions related to maintaining confidentiality will be upheld to ensure that no participant identifying information is released.

Disposal of Data

Electronic data from this study will be kept for 5 years from the date they were created, and disposed of after this time. Electronic data will be deleted from the servers and computers.

Contacts

Individuals that may be contacted regarding this study include:

- Researcher: **Tom Ying** (BSc, BSN, RN), tomying@uvic.ca, 778-835-5888
- School of Nursing Supervisor: **Noreen Frisch**, (PhD, FAAN, RN), nfrish@uvic.ca, 250-721-6462
- School of Health Informatics Supervisor: **Elizabeth Borycki**, (PhD, RN), emb@uvic.ca, 250-472-5432

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the **Human Research Ethics Office** at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project.

<i>Name of Participant</i>	<i>Signature</i>	<i>Date</i>
----------------------------	------------------	-------------

Visually Recorded Images/Data - Participant or parent/guardian to provide initials, *only if you consent (If you don't consent, leave blank)*:

- Photos may be taken of me for: Analysis _____ Dissemination* _____
 - Photos, audio and video may be taken of me for: Analysis _____ Dissemination* _____
- OR
- Only audio may be taken of me for: Analysis _____ Dissemination* _____

*Even if no names are used, you may be recognizable if visual images are shown in the results.

Waiving Confidentiality – *Please select statement only if you consent (If you don't consent, leave blank)*:

I consent to be identified by name / credited in the results of the study: _____ (Initials)

I consent for photos, audio and video to be identified by name/credited in the results of the study: _____ (Initials)

I consent to have my responses attributed to me by name in the results: _____ (Initials)

A copy of this consent will be left with you, and the researcher will take a copy.

Appendix 5 - Letter from InspireNet



September 4, 2015

University of Victoria
Human Research Ethics Board
Office of the Vice President Research
Room A110, Administrative Services Building,
3800 Finnerty Road
Victoria BC, V8P 5C2

Re: Tom Ying Thesis Project:

Exploring Peripheral Member Engagement in a Virtual Health Care Professional's Network

Dear HREB Reviewers,

This letter confirms that dual degree MN (Nursing) & MSC (Health Informatics) candidate Tom Ying has express approval for his thesis project from InspireNet (INnovative health Services & Practice Informed by Research & Evaluation Network). His project involves contacting InspireNet members to determine levels of member engagement, work which we support and value.

InspireNet is funded by the Michael Smith Foundation for Health Research as a grant award to the University of Victoria. Dr. Noreen Frisch, Professor, School of Nursing, is the grant award holder.

Best regards,

Pat Atherton
InspireNet Manager
e: patherton@inspirenet.ca
w: www.inspirenet.ca
Skype: patherton1
Twitter: @InspireNetBC
Facebook: InspireNet

Funded by the Michael Smith Foundation for Health Research

October 31, 2015 Version 2

InspireNet: INnovative health Services & Practice Informed by Research & Evaluation
Network
Connecting People, Ideas and Solutions