

HOMELESS BOUND: A SEARCH FOR DIGITAL LITERACY
WITHIN THE REALM OF SOCIAL MEDIA

by

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DALHOUSIE UNIVERSITY

SCHOOL OF INFORMATION MANAGEMENT

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Abstract

Social media usage trends within the homeless community are not well documented. To date, few studies have examined how the poor navigate and/or build relationships in online environments, and whether these activities provide opportunities for integration into mainstream society. This study aims to fill the existing research gap by observing the usage trends of the website Homeless Nation. The objective of this study was to examine if the site aids in the development of a) digital literacy skills, b) information seeking behaviours and/or c) relationships in online communities. The data show that the site promotes relationships between the homeless community and mainstream society as well as inclusive discussions about poverty that are extrospective in nature. These findings contribute to the discussion of the digital divide, and provide insight into how social media initiatives can prevent the further solidification of social roles that segregate marginalized communities from mainstream society.

List of Abbreviations Used

CCAP	Carnegie Community Action Project
CHC	Citywide Housing Coalition
HN	Homeless Nation
OSM	Online Social Media

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Chapter 1 Introduction

1.1 Background

The idea for this study originated two years ago after I met an individual who made use of services offered through the Mustard Seed, a homeless shelter located in Calgary, Alberta. He explained some of the difficulties he faced while navigating electronic resources such as job boards or social networks. Many of his frustrations were due to factors such as inexperience searching online databases and limited access to the Internet. As a result, information access posed obstacles for this individual, and he expressed fears regarding how these barriers would affect his success in securing employment and low-income housing. In addition, he spoke about feelings of isolation due to difficulties communicating online with communities or service providers who could offer support, advice or training.

During the same year, author Brianna Karp published a memoir entitled *The Girl's Guide to Homelessness*, which recounts her experience living in a Wal-Mart parking lot for a year after the Great Recession hit California in 2008. During that time, she had access to a laptop and was able to connect to free Wi-Fi through local coffee shops. She located an online community of individuals who were also experiencing homelessness, and received advice and information that led to employment opportunities. In addition, the community offered emotional support, which she claimed reduced her feelings of isolation and despair. At the same time, Ms. Karp began a blog in order to discuss issues related to poverty and homelessness, including an examination of common stereotypes. Her site received a large amount of public attention and media coverage,

including a story published in the Huffington Post. Eventually, Ms. Karp was offered an internship with *Elle* magazine, and was able to leave the streets.

When examining these stories side by side, an initial observation is that factors such as digital literacy, information seeking behaviours and online communication capabilities influenced the success these individuals had in locating appropriate resources and social support. While such differences could have been based on the unique experiences of two people, I began to question if they also hint at trends that exist within the homeless community. My initial examination of literature related to this broad topic revealed that it had not received a great deal of focus in academic research. In particular, I found that the ways in which homeless individuals make use of the Internet and online social media (OSM) had received very little attention from researchers, particularly within Canada. One report published last year, which studied social media as a tool for social inclusion, stated that “it is surprising that no pertinent Canadian academic studies on [Internet usage within marginalized communities] were unearthed, online or otherwise, during the course of this research” (Taylor, 2011, p. 15). The report also noted that “in the 800-plus page 2009 e-book *Finding Home: Policy Options for Addressing Homelessness in Canada* written by some of Canada’s foremost experts on the topic of homelessness, the issue of internet access is not mentioned” (p. 17). Based on the evidence, I determined that the impact of OSM on knowledge dissemination and communication had not been considered in great depth by researchers of Canada’s homeless community.

The goal of this study is to fill the existing research gap outlined above by examining if and how Canada’s homeless community makes use of available OSM tools.

To fulfill this goal, I observed user activities on the website Homeless Nation (www.homelessnation.org) for evidence of digital literacy skills, the promotion of information seeking behaviours and the establishment of relationships between site users. The findings of this study have particular significance to the information management community as they provide insight into the issue of the digital divide (see section 2.4), and how homeless individuals make use of OSM platforms for information seeking and communication purposes.

1.2 Research Objectives and Questions

The objective of this study was to observe how and why homeless individuals use Homeless Nation, and to examine if the website serves as an online tool that aids the homeless in the development of a) digital literacy skills, b) information seeking behaviours and/or c) relationships in online communities. This objective was achieved by examining the goals of Homeless Nation (as outlined in section 1.6), observing how the site is utilized by the user community, and determining whether this usage aligns with the stated goals. The following research questions guided this investigation:

- 1) What evidence is there to suggest whether or not the OSM environment of Homeless Nation develops or strengthens digital literacy skills in the homeless community?
 - a. Which category of user posts and/or comments with the highest frequency?
 - b. How is the site primarily used (e.g. to engage in discussion, seek information, etc.)?

- c. Is there a high participation rate? How many users view posts without participating in discussion?
 - d. Do users create blog or video posts with higher frequency? What formats are relied upon for learning and communication needs?
- 2) What information seeking and/or dissemination behaviours do homeless individuals display when using the Homeless Nation website?
- a. Do users post direct or indirect questions to the site?
 - b. Which users are posting informative content in site forums?
 - c. What types of informative content are being posted?
 - d. What types of informative content receive the highest number of views?
- 3) What relationships or ties within the online community are fostered by Homeless Nation?
- a. What types of users belong to the Homeless Nation online community?
 - b. Which users have the most influence in the community?
 - c. Which users post content with the highest frequency?
 - d. Which users post comments with the highest frequency?

Answers to these questions contribute to the body of knowledge regarding OSM usage by the Canadian homeless community, and are of value to professionals such as information managers and social workers who hope to establish similar online initiatives.

1.3 Introduction to the Literature

The study of OSM use by the homeless community is a complex issue that relates to factors such as online capabilities and access to technologies. Currently, it is not an

area that has received a great deal of attention from academics. After establishing the research objectives, I determined that a literature review of several key topics would provide an appropriate theoretical foundation for this study. The areas of inquiry include digital literacy, information seeking behaviours, the digital divide, relationships between public libraries and the homeless community, social media use within the homeless community and the formation of online communities. These areas provide background knowledge regarding how the homeless navigate online environments and establish communicative relationships. They also address existing information barriers that prevent marginalized individuals from accessing electronic resources, and examine programs and training opportunities that seek to overcome such barriers. The results of this examination are discussed in chapter 2.

1.4 Introduction to the Method

In order to fulfill the study objectives, I observed the online environment of Homeless Nation for evidence of digital literacy, information seeking behaviours and the establishment of communicative relationships within the user population. With the research questions in mind, I examined site content and concluded that a combination of content analysis and social network analysis provided the most suitable research design. Then, I collected the data sample (composed of both quantitative and qualitative data) using stratified sampling methods. In accordance with the standards of content analysis, I compiled study results using a variety of techniques such as the creation of content categories, counts and averages. Data was also examined at a word level using the online software Netlytic (www.netlytic.org) in order to examine trends of word and phrase usage over time. In accordance with the standards of social network analysis, I built

network diagrams using the online software ORA (<http://www.casos.cs.cmu.edu/projects/ora/>) in order to examine the communicative relationships that exist within Homeless Nation. A detailed account of the data collection and preliminary analysis is provided in chapter 3.

1.5 Background Information Regarding Homeless Nation

Homeless Nation is described as an “online home for those who have none, and a tool for learning, social justice and positive change” (Homeless Nation, 2009, para. 10). The site allows homeless individuals to “set up profiles, blog about their lives or about issues, upload videos and share advice, tips and news” (Pinchin, 2009, para. 7). It also contains forums where users can search for services by province, as well as report missing persons. A team of Homeless Nation staff moderate the site, and are committed to “ensuring that digital tools for media, learning, and communication are made available for homeless Canadians” (Homeless Nation, 2009, para. 6). Many of these workers actively distribute donated computers and technological equipment to shelters and drop-in centres “providing opportunities for the creation of audio, visual, or written testimonials from those whose voices are kept silent by their circumstances” (Homeless Nation, 2009, para. 7). In addition, the organization runs free workshops that teach valuable computer skills. On average, “twenty-five people crowd into the computer room to learn how to access the Internet, search for housing and jobs and shoot and edit videos with loaner camcorders” (Pinchin, 2009, para. 8).

Founder Daniel Cross created Homeless Nation to fill service gaps that he identified while filming interviews with members of the homeless community. He

developed seven goals for this online initiative, which relate to the development of a) digital literacy skills, b) information seeking behaviours and c) communicative relationships within the street community. They include the following:

- 1) To build virtual street communities across Canada;
- 2) To encourage discussion about the social issues surrounding homelessness;
- 3) To create dialogue between Canada's homeless and mainstream society to counter isolation and marginalization;
- 4) To break down barriers and stereotypes in Canadian society;
- 5) To unite resources serving the homeless;
- 6) To [create a forum] where the homeless can find shelter, food, health care and legal assistance;
- 7) To create a collective voice for Canada's homeless population. (Homeless Nation, 2009, para. 4)

Homeless Nation's dedication to promoting technical skills and public discussion about poverty has not gone unnoticed in mainstream society. In 2009, the site won numerous awards including the Canadian New Media Award and the Society for New Communications Research Award. Most notably, it "beat out 20,000 other entries to win the 2009 Summit Award for e-inclusion and participation from the United Nations" (Pinchin, 2009, para. 7).

Despite the many accolades, Homeless Nation was largely sustained by grant funding and suffered from financial pressures due to the economic recession. In 2010, a number of forums were closed and the site lost several moderators, both of which had an impact on usage trends. As such, this study focuses on site activity between the years

2008-2009. A detailed explanation of the rationale pertaining to the selection of the data sample is available in chapter 3.

1.6 Structure of the Thesis

This thesis has six chapters: Introduction, Literature Review, Method, Findings, Discussion and Conclusion. The purpose of these chapters is to provide a context for the study and a detailed account of findings, all of which work together to fulfill the research objectives. The Literature Review examines scholarship on digital literacy, information seeking behaviours, the digital divide, relationships between public libraries and the homeless community, social media use within the homeless community and the formation of online communities. The Method chapter describes how the theories of content analysis and social network analysis influenced the collection and preliminary analysis of the data sample. The Findings chapter discusses study results within the context of the three central research questions. The Discussion chapter answers the three research questions and describes observed trends. Finally, the Conclusion summarizes study findings and recommends areas for future study.

1.7 Definition of Terms

As this study is multi-disciplinary in nature, the vocabulary that I used to discuss the methodology and analysis of the data sample was derived from a variety of fields. This section provides definitions of all key terms that were used throughout the thesis.

Comment: also called “remarks.” Comments are often posted on blog or video posts in order to provide impressions, opinions, or engage in conversation (PC Magazine, 2012).

Content: any information available for retrieval by a user. It can include web pages, images, videos, and the like (PC Magazine, 2012).

In-degree centrality: the individuals within a community who develop relationships with central users. These ties are achieved by posting comments on blog or video posts (Hanneman & Riddle, 1998).

Lurkers: users who read posts or observe a community, but do not contribute content (Russo & Peacock, 2009).

Netlytic (the Internet Community Text Analyzer): a tool developed by Dr. Anatoliy Gruzd at Dalhousie University for the purpose of analyzing online information (Grek Martin, 2011).

Online social media (OSM): web-based media for social interactions and user-created content including social networking websites, forums, weblogs, video sharing sites, examples of which include Facebook, YouTube, Skype and several hundred other options on the internet (Taylor, 2011, p. 6).

ORA: a tool developed by Kathleen M. Carley at Carnegie Mellon University for the purpose of analysing online social networks through the creation of network diagrams, measurements of network density, calculations of user centrality, and so on.

Out-degree centrality: the individuals within a community that exchange ideas or make many others aware of their views. These individuals are said to be influential users within the overall communication structure (Carley, 2011).

Post: an entry made on a blog or OSM site (PC Magazine, 2012).

Total degree centrality: the individuals within a community that are linked to many others, and by virtue of their position, have access to the ideas, thoughts, beliefs of many others (Carley, 2011).

User: an individual who is a registered member of a website. Information is volunteered by registered users who can then post comments or questions to the forum. (Grek Martin, 2011)

User generated content: the production of content by the general public rather than by paid professionals (PC Magazine, 2012).

Video blog: a website that contains video clips that can be viewed immediately often through social media repositories such as YouTube. Viewers can often leave comments regarding their impressions of video content (PC Magazine, 2012).

Weblog (Blog): a website that contains dated text entries in reverse chronological order. Blogs are often formatted as online journals or newsletters that are authored by one individual or a group of contributors. They contain reflections, opinions or commentary, and may include hyperlinks to related sites (boyd, 2006, PC Magazine, 2012)

Chapter 2 Literature Review

Over the past several years, numerous studies conducted by academics and practitioners have investigated the information access and communication trends that currently exist in society as a result of social media use. A great deal of this research focuses on how the general public utilizes such technologies, but few studies have explored if and how social media tools are used by marginalized communities. Due to this research gap, it is not understood whether or not digital technologies promote the development of digital literacy skills, facilitate information seeking behaviours and influence the establishment of online social communities within homeless communities.

The purpose of this literature review is to establish a theoretical and methodological foundation for this study, which focuses on the ways in which the homeless utilize the website Homeless Nation. The research examined in this chapter contextualizes the results of this study within the existing tradition of scholarship in the information management field. It also demonstrates how study results fill established research gaps. This chapter begins with a definition of homelessness, followed by an overview of previous research relating to the basic components of digital literacy, the information seeking behaviours of the homeless, the impact of the digital divide on information access, the relationship between public libraries and homeless communities, the use of OSM by marginalized individuals, and the structure of online communities.

2.1 A Definition of Homelessness

Homelessness is a social issue that is both highly visible and indiscriminate. In Canada, street communities are composed of thousands of individuals from a wide variety of backgrounds and circumstances. There is no distinct demographic profile that

defines these individuals, as they belong to all ethnicities, generations, orientations and religions (Human Resources and Skills Development Canada, 2011, para. 5). Over the years, researchers have identified a wide number of vulnerabilities that can result in homelessness including low levels of education, unemployment, lack of support from social networks, dysfunctional family life, and disabilities (Bure, 2006, para. 6). The resulting lifestyle has been described as highly unpredictable and transient, with decisions made on a minute-to-minute basis (Bure, 2006, para. 6). As a result, it is difficult to quantify street communities as they are constantly in flux. Based on the above factors, researchers and policy makers have encountered difficulties arriving at a concrete definition of homelessness.

In an effort to create a standard definition that accounts for all situations, the Government of Canada divided the homeless population into three categories: the chronically homeless, the cyclically homeless, and the temporarily homeless (Government of Canada, 1999, para. 11). While these classifications are useful to an extent, they are broad and group unrelated circumstances under the same umbrella. For example, the category of temporarily homeless can relate to any individual who has lost a home due to a natural disaster, or any individual who is incarcerated (Government of Canada, 1999, para. 11). Due to the wide range of interpretations that result from broad classifications, it is absolutely essential for researchers to clearly define and identify what is meant by the term “homeless” in any study, as this will have a profound impact on the environments selected for observation as well as the general interpretation of results.

For the purpose of this study, I selected a definition of homelessness that was developed by the Homeless Hub: Canadian Homeless Research Library at York University (The Homeless Hub, 2007). It states,

Homelessness is an extreme form of poverty characterized by the instability of housing and the inadequacy of income, health care supports and social supports. This definition includes people who are absolutely homeless (those living on the streets, sometimes referred to as ‘rough sleepers’); shelter dwellers (people staying temporarily in emergency shelters or hostels); the ‘hidden homeless’ (people staying temporarily with friends or family); and others who are described as under housed or ‘at risk’ of homelessness. (para. 1)

Based on the classification systems developed by the Government of Canada, this definition refers to the chronically and the cyclically homeless. When I examined the user population of Homeless Nation, I determined that individuals identified as homeless rely on shelters and drop-in centers for the provision of basic necessities, or live on the streets. Based on this observation, I concluded that the definition of homelessness outlined above best describes the circumstances and characteristics of the sample group.

2.2 A Definition of Digital Literacy

Digital literacy skills significantly impact an individual’s ability to access information, disseminate knowledge and interact within online social networks. In recent years, researchers have stated that “digital literacy is fast becoming a prerequisite for creativity, innovation, and entrepreneurship, and without it citizens can neither participate fully in society nor acquire the skills and knowledge necessary to live in the twenty-first

century” (Martin, 2005, p. 1). Digital literacy is a particularly significant issue in the discussion of homelessness, as the degree to which affected individuals are able to navigate online environments, link to valuable resources and locate support communities has a tremendous impact on their ability to overcome poverty (Juchniewicz, 2011, p.8). Janelle Kelly, the Vancouver co-ordinator for Homeless Nation, stated that the ability to use computers and the Internet is essential “to progress, to find housing, be able to manage finances, and to do a résumé. If people on the street don’t have access to technology then they’re going to be left behind” (Pinchin, 2009, para. 6). As such, discussions surrounding digital literacy rates and skill sets are increasingly intertwined with examinations of poverty and homelessness. It is important to note that digital literacy is characterized by a number of skill sets that are distinct from those associated with traditional literacy. The following discussion differentiates between these two concepts, and provides the definition of digital literacy that I used throughout this study.

Traditional literacy is defined by the National Assessment of Adult Literacy as the ability to use printed or written information for the purpose of achieving goals, developing knowledge, and functioning in society (Juchniewicz, 2011, p. 25). These skills are primarily operational, and are measured by an individual’s ability to complete specific tasks or demonstrate specific skill sets. In contrast, digital literacy refers to an individual’s ability to utilize electronic resources for the purpose of accessing information and communicating online. It can be defined as

the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesise digital resources, construct new knowledge,

create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process. (Bawden, 2008, p. 27)

While this definition states *what* digital literacy is, for the purposes of this study it was also essential to develop a set of criteria relating to *how* this phenomenon can be measured in a practical sense. In an article discussing the information needs of the homeless community, Julie Hersberger (2005) provided a list of core skills that must be evident in online behaviours in order to determine if digital literacy is indeed present.

These include the abilities to

- 1) Use technologies (such as the Internet) for the purposes of seeking information;
- 2) Use technologies (such as the Internet) for the purposes of disseminating knowledge;
- 3) Interact within social networks;
- 4) Adapt to the existing communication frameworks of online platforms (p. 201).

Based on the definition and criteria of digital literacy listed above, it is apparent that these skills are not only measures of operational functionality, but also account for the degree to which individuals can navigate, function, and participate in online communities. In this study, I used these criteria to analyse the online behaviours of Homeless Nation users, and determine whether or not these behaviours provided evidence of digital literacy.

To examine the issue of digital literacy on a deeper level, a study by Van Dijk and Hacker (2003) determined that it is possible to use established requirements, such as

those listed above, to identify skill set gaps that exist within user groups of homeless individuals. There are three main areas in which most gaps occur:

- 1) Instrumental skills: the ability to operate hardware and software;
- 2) Informational skills: the ability to use technologies to search for information;
- 3) Strategic skills: the ability to use information to influence one's position within information networks (p. 319).

The identification of gaps within an online community provides insight into the ways that online environments can be improved to better suit the needs of homeless individuals. As such, knowledge of the general strengths and weaknesses of online environments serve as a basis for the development of standardized best practices that address the true needs of the street community.

2.3 Information Seeking Behaviours and the Homeless

Related to the idea of digital literacy is the concept of information seeking behaviours, which include the abilities to utilize technologies such as the Internet, electronic resources and social media for the purposes of gathering and disseminating information. They are defined as “the behaviours that are the directly observable evidence of information needs and the only basis upon which to judge both the nature of the need and its satisfaction” (Case, 2007, p. 5). These behaviours also encompass an individual's ability to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (Bawden, 2008, p. 52).

There are three criteria that provide evidence of existing information seeking behaviours:

- 1) A recognition that held knowledge is inadequate to satisfy a specific goal;

- 2) A conscious effort to acquire information in response to a need or gap in knowledge;
- 3) The totality of other unintentional or passive behaviours, such as glimpsing or encountering information. (Case, 2007, p. 5)

Based on the definition and criteria of information seeking behaviour listed above, it is apparent that the process of locating information is highly complex and can be influenced by a variety of active and passive behaviours on the part of the information seeker. In this study, I used these criteria to analyse the online behaviours of Homeless Nation users, and determine whether or not these behaviours provided evidence of information seeking behaviours.

One of the fundamental assumptions regarding information seeking behaviours is that individuals have information needs (Case, 2007, p. 76). After all, it is the need for information that is an instrumental element in reaching a desired goal, and thus provides motivation to locate information (Case, 2007, p. 76). In regards to the information seeking behaviours of the poor, studies by Chatman (1996, 1999, 2000) have found that many live in impoverished information worlds because of the inability or unwillingness to solve critical worries or concerns through interaction with information or an information society (Chatman, 1996, p. 197). The evidence of these barriers in information seeking behaviours are often linked to other factors such as the absence of contact with positive personalities, a narrow outlook on the world, and a lack of social opportunities (Chatman, 1996, p. 197). Similar findings were noted in a study by Jaeger and Thompson (2004). They stated that

information poverty is lack of connection to the greater information community caused by either voluntary or imposed alienation from general society. Individuals minimize contact with society at large by creating social groups within a particular social status and then seek information mostly from within that social small world (para. 20).

A small world is essentially a social group in which world views are bound by mutually accepted opinions and concerns (Jaeger & Thompson, 2004, para. 20). Essentially, a community of people “live in an information world that is defined by their shared culture: the way in which people acquire and use information and the way in which they make sense of the information are all ultimately shaped by this culture” (Yu, 2006, p. 232). This group mentality creates a collective sense of what is or is not important, which affects information behaviours including action or inaction with regard to available information (Jaeger & Thompson, 2004 para. 20).

Just as the collective opinions of social groups assign value to information, the position these groups occupy within societal hierarchies also influences information seeking behaviours. Merton (1972) and Chatman (1996, 1999, 2000) found that the dynamics between individuals occupying various social roles have a significant impact on the degree to which homeless individuals seek information. For instance, the interaction between insiders (homeless) and outsiders (mainstream society) can result in misunderstandings that arise due to assumptions regarding the needs of the poor, as well as a basic distrust for those who have never experienced homelessness (Chatman, 1996, p. 194). As Merton (1972) stated,

insiders claim privileged access to certain kinds of knowledge. That is, only insiders can truly understand the social and informational worlds of the insiders. Although the knowledge is narrow in scope, it serves to insulate and protect the worldview of insiders from contamination by outsiders (p. 13).

The idea that circumstances can only be understood or discussed by those who have experience them directly creates information barriers that cause marginalized individuals to become hesitant and secretive in regards to their own information needs. The homeless do not always see value in resources provided by outsiders because they doubt the ability of outsiders to respond to their situation. As a result, the homeless require sources to be legitimized by contextual others (Chatman, 1996, p. 202).

In general, strong relationships are established between individuals who have the same social role because they identify with common values and have similar lifestyles. However, these similarities mean that individuals within a social group are privy to the same pool of information, causing knowledge gaps to appear. In order to fill these gaps, individuals may consult with people in other social groups to access new sources of information (Savolainen, 2008, para. 4). This phenomenon is explained by Weak-Tie Theory, which states that

when information is unavailable through strong ties, people may obtain it through weak ties, relationships characterized by absent or infrequent contact, lack of emotional closeness and no history of reciprocal services. Thus, relative strangers

can offer an advantage over friends and colleagues in obtaining useful information (Savolainen, 2008, para. 4).

As weak tie relationships are largely based on information access, individuals pick people who have greater life experience, status, higher education rates, and so on (Jaeger & Thompson, 2004, para. 22). These individuals are said to have greater social capital and are seen as the best or most helpful sources, as opposed to being easily available (Jaeger & Thompson, 2004, para. 22). Within homeless communities, the acceptance of information from weak tie relationships is based on trust, and must be legitimized by contextual others. In many cases, the social role of the individual disseminating information influences the deemed usefulness of that information. For instance, individuals who hold positions in society such as social workers or shelter staff are generally accepted by the homeless as trustworthy sources, as they have knowledge of the values and needs of the homeless community (Hersberger, 2003, p. 243). These ties ultimately function as “local bridges” because they connect the homeless with individuals situated in different social networks (Savolainen, 2008, para. 4). While these relationships require effort to maintain because of a lack of common ground, there are greater expectations regarding the benefits that will result from interactions (Jaeger & Thompson, 2004, para. 22).

Essentially, the homeless do not view information as isolated units of data or knowledge. Rather, information means nothing to these individuals if “it is not part of a system of related ideas, expectations, standards, and values” (Chatman, 1999, p. 209). Thus, the information seeking behaviours commonly displayed in marginalized communities are complex, and are influenced by factors such as social roles, trust and the

legitimization of sources by insiders. In order to understand how the homeless seek information, it is essential to consider information within the context of their social environment, as this defines their unique sets of information needs.

2.4 A Discussion of the Digital Divide

The digital divide is an issue that has been discussed and debated for years. Scholars describe the phenomenon as an accessibility gap that exists between the information rich and the information poor (Hersberger, 2003, p. 240). In other words, information poverty is a “dichotomy between those with easy access to an abundance of information and those who do not [know] how and where to find it and even, perhaps, do not understand the value of information and how it can help them in their day-to-day lives” (Goulding, 2001, p. 109). Discussions surrounding the digital divide involve issues such as the accessibility and availability of the Internet, electronic resources, and digital technologies for the purpose of information seeking behaviours.

In the past, the information management community implemented a variety of strategies meant to close the gap, such as providing access to computers and the Internet at public libraries (Hersberger, 2003, p. 240). However, scholars such as Hersberger (2003), Jaeger & Thompson (2004), Yu (2006), and Thompson (2007) recently stated that emphasis on access to technology diverts attention from the root causes of the digital divide. These include the need for basic digital literacy training and the acknowledgement of segregation caused by poverty (Hersberger, 2003, p. 240). For instance, in order to harvest information from electronic resources, individuals must possess basic computer skills (including the ability to work a keyboard and mouse) as

well as the ability to formulate appropriate search queries for information retrieval systems (Thompson, 2007, p. 93). Due to factors such as poverty, many marginalized individuals do not have access to technology at home or at work, and must put in a great deal of effort to access electronic resources and develop computer skills (Jaeger & Thompson, 2004, para. 18). In many cases, the individuals who are not connected are the one who could most use electronic services to find jobs, housing, or other services (Jaeger & Thompson, 2004, para. 18). As such, information poverty is essentially an “imbalanced distribution of information-related rights to different sections of society...Such imbalances seriously undermines people’s equal footing in social participation, and should be seen as a form of social injustice” (Yu, 2006, p. 232).

Recent studies by Servon (2002), Van Dijk & Hacker (2003), Bure (2006) and Pinchin (2009) examined the digital divide as a symptom of persistent poverty and inequality in society. Although the “widespread access to and use of technology will not solve these larger problems, [it] can help show the way out” (Servon, 2002, p. 2). At the present moment, “thousands of homeless Canadians do not have regular access to computers and many simply do not know how to use the Internet. For Canada’s homeless, many of the benefits of increasingly high-tech lifestyles are remote” (Pinchin, 2009, para. 3). Thus, a great deal of research regarding the digital divide discusses the social roles that individuals occupy, as well as the clear-cut differences in technical skill and usage levels that currently exist between various social groups (Van Dijk & Hacker, 2003, p. 324). This focus brings attention to many hidden issues in society, such as exclusion characterized by a lack of community or social interactions, poor links to

formal social networks and exclusion from public services (Bure, 2006, para. 4). As such, the digital divide is a form of segregation resulting from divisions between social classes.

A recent study conducted in Scotland examined the digital divide as a symptom of social segregation by observing how the use of various technologies by members of the homeless community influenced their integration into mainstream society. Under certain circumstances, the inclusive and participatory nature of the Internet served as a framework for digital inclusion in online environments. This was attributed to the fact that the Internet is an “open medium that allows for broad participation, and allows users to both respond to what exists and produce their own material...if they possess the skills and access necessary to do so” (Servon, 2002, p. 3). In addition, the Internet allows for the creation of social networks that can be used for communication, support, and information access. As more people join these networks and participation increases, the value of the network itself increases (Servon, 2002, p. 3). As such, technologies can be used to “facilitate a move towards stability [in marginalized communities] by providing access to communication and information paths” (Bure, 2006, para. 55). However, it is also acknowledged that “more research needs to be done to fully understand when technologies may help to bridge inclusion into mainstream society, or when they are used as a link to homeless subculture” (Bure, 2006, para. 21).

While there is still a great deal to be learned about the nature of the digital divide, it is more important than ever to prevent the gap between the information rich and the information poor from increasing. If not, resources and services of value to marginalized communities will become increasingly inaccessible, causing the further solidification of social segregation based on social roles.

2.5 Public Libraries and Homeless Communities

Public libraries are often designated as institutions that combat the digital divide because they provide free access to technologies such as the Internet. However, a study by Silver (1996) found that the homeless tend to be rejected from public libraries because of assumptions that they may try to sleep in these locations (p. 12). Many of these individuals feel an overall sense of rejection or exclusion from public spaces because they are stigmatized by the way they look or act (Silver, 1996, p. 12).

Several years ago, Harvey (2002) conducted a study in Durham, North Carolina regarding perceptions that information professionals have of the information access abilities of homeless patrons. Results indicated that, in many cases, library staff relied on assumptions regarding what these patrons feel or need rather than on the abilities of homeless individuals to express their own thoughts (Harvey, 2002, p. 1). However, when information professionals connect with the experiences of the homeless, they develop a realistic understanding of the true needs that exist within the community (Harvey, 2002, p. 1).

A similar study by Bure (2006) revealed that “the context or environment in which an Internet access point is situated is crucial in influencing whether homeless people come to use the resource or not” (Bure, 2006, para. 32). The perception of a physical location “brings with it many social implications (from stigmatization to social acceptance), which affects how spaces, including the technologies held within it, come to be used” (Bure, 2006, para. 32). Findings indicated that psychological and emotional connotations regarding a physical space, such as public library branches, have a significant impact on whether homeless individuals feel welcomed or excluded from

activities involving various technologies. One outreach worker interviewed for the study explained, “it is possible for a homeless person to walk past the city library without even noticing its presence because it’s not in their stomping ground. It’s not their frame of reference” (Bure, 2006, para.32).

The knowledge that public libraries influence social attitudes towards the homeless has prompted evaluations of the relationships that exist between information professionals and the street community. As Julie Hersberger stated,

the primary issue facing service providers to the homeless can be summoned up in one word: attitude. A decade of studying the homeless as an information-user population has frequently called attention to the subject of the attitude of the information provider. In one study, those who provided information in a friendly manner were often referred to as friends. However, in many circumstances, the homeless were very sensitive to a feeling of unworthiness in the perception of the information provider. (Hersberger, 2005, p. 201)

The values of building communal relationships with marginalized individuals, as well as providing opportunities for suitable training and support, are also outlined in Policy 61:

Library Services to the Poor in the ALA Policy Manual, which states,

it is crucial that libraries recognize their role in enabling poor people to participate fully in a democratic society, by utilizing a wide variety of available resources and strategies. Concrete programs of training and development are needed to sensitize and prepare library staff to identify

poor people's needs and deliver relevant services. (American Library Association, n.d., para. 1)

Over the past several years, a number of initiatives at public libraries have prompted the development of relationships between information professionals and the homeless community. For example, the Seattle Public Library created opportunities for homeless people to connect with a number of writers' workshops and reading groups (Grace, 2000, p. 53). Also, at the San Francisco Public Library, information professionals work closely with the city's Homeless Outreach Team to provide peer counseling, computer and job search classes, and connect homeless patrons with services that can provide shelter and food (Lilienthal, 2011, p. 31). In Denver and New York, librarians regularly visit homeless shelters to develop relationships with members of the street community, and raise awareness of computer access training and job search help (Lilienthal, 2011, p. 31). Stanford Berman, one of the first librarians to champion library services to the poor, recently encouraged public libraries in every city to collect street newspapers published in their communities, as they give the poor a "place to air their views...and few libraries collect the authentic words that tell us all what it is like to be poor and what the poor want and need" (Berry, 2011, p. 10). Finally, the Working Together Project: Library-Community Connections, launched across Canada in March 2004, seeks to establish communicative relationships with socially excluded communities in an effort to understand what these individuals need and want from public libraries, and investigating related barriers to library use (Working Together, 2004, para. 2).

While the initiatives discussed above provide opportunities for information professionals to connect with the homeless, there is still a lack of literature that attempts

to understand the issue of homelessness from the patron's point of view (Harvey, 2002, p. 9). The homeless still require cognitive authority from libraries, which "refers to authority granted to individuals to be experts about their own experiences" (Harvey, 2002, p.9). In essence, "the everyday experience of homeless people grants them the authority to talk about their own lives" (Harvey, 2002, p.9). This existing knowledge gap makes websites such as Homeless Nation of significant value to the information management profession. Through mediums such as blogs and video diaries, homeless individuals are provided with the opportunity to share aspects of their daily lives with mainstream society. The information housed in these types of social media platforms provide details about the specific needs of homeless patrons, and can serve as a basis for the development of initiatives and policies that are meant to provide support to the community.

2.6 Social Media and the Homeless

The literature discussed in the previous section discussed the initiatives developed by information professionals in order to foster relationships with the homeless community. However, the examples indicate that many of these programs are based on face-to-face interactions. Many libraries have not taken the next step, which is to develop social media platforms for digital literacy training, resource discovery and discussions of poverty. Due to the increasingly digital nature of society, public libraries are no longer the only location homeless individuals can go to access the Internet. Recent years have seen an increase in the number of not-for-profit programs that distribute donated computers and technical equipment to drop-in centers and shelters in an effort to provide access points to marginalized individuals (Homeless Nation, 2009, para. 7). In many

cases, the social media initiatives geared towards the street community are also developed by individuals connected with not-for-profit organizations. These programs “share the goal of alleviating poverty, increasing dialogue, and nurturing a more supportive and creative environment where society can find real solutions to the complex problem [of poverty]” (Pinchin, 2009, para. 18). In order to create social media initiatives that meet the needs of the homeless community, it is important to first be aware of how current online forums are used by this population.

The fact that many homeless individuals access the Internet through public terminals represents the reality that many rely on public spaces and resources for the majority of their needs (Bure, 2006, para. 35). As a result, the concept of personal identity becomes public for these individuals, as they constantly encounter stereotypes during interactions with members of mainstream society in face-to-face situations. However, online environments provide situations in which homeless individuals are free to provide or withhold any feature of their identity (Bure, 2006, para. 35). Through the use of avatars and other anonymous identities, many homeless individuals experience feelings of freedom due to limited social consequences for their online actions (Bure, 2006, para. 35).

In the past, researchers observed how homeless individuals build relationships through online social networks such as chat rooms. A study by Hersberger (2003) determined that one of the primary goals of homeless individuals was to establish contact with people who could provide information regarding needed resources (p. 243). As such, interactions were largely based around information seeking behaviours. In recent years, study results indicate that while access to information is still valued, the homeless also

use online networks to build relationships (Bure, 2006, para. 42). For instance, Taylor (2011) recently studied the online activities of the homeless community in Ottawa, Ontario. Findings indicated that social networking sites such as Facebook are used primarily by members of the street community to maintain and repair relationships (p. 2).

In recent years, media repositories such as YouTube have gained popularity with the street community and advocates for the homeless (Taylor, 2011, p. 16). These sites allow individuals to create original videos on virtually any topic and share content with the general public. Many activists, outreach workers, formerly homeless and homeless individuals create videos in order to describe and discuss the challenges of poverty. One project that has gained public attention is entitled InvisiblePeople.tv, created by Mark Horvath, a formerly homeless man living in California. To date, he has interviewed hundreds of homeless people across the United States and has “sparked discussion about poverty and hunger” (Horvath, 2010, para. 1). Many of the interviewed individuals provide a “raw and real depiction of what it’s like to live in a tent city, under an overpass, or within a cardboard box” (Horvath, 2010, para. 1). At the end of each interview, homeless individuals are asked to describe their hopes for the future. Surprisingly, instead of speaking about an instant end to homelessness, their desires are that “people see the reality of homelessness, and that we develop communities and work as a team to solve this social crisis” (Horvath, 2010, para.15). Such statements relate to the notion discussed earlier in the literature review that the poor are marginalized not only by circumstance, but also by the stereotypes assigned to homelessness. However, social media tools are allowing the street community to have a voice in society and raise awareness about a variety of issues that result in homelessness such as unemployment, disabilities, the loss

of support networks, and the disappearance of low-cost housing due to gentrification initiatives.

In addition to social media repositories, recent studies found that homeless blogs are extremely popular. Over the last several years, so many have emerged that researchers now consider homeless blogs to be a new genre of online writing. Many are characterized by a desire for engagement in public discussion because bloggers find validation through interaction and contribution to a community (Grafton & Maurer, 2007, para. 1). When these sites first surfaced, researchers believed homeless blogs would simply be an extension of the diary genre due to the autobiographical style. However, further observation indicated that homeless bloggers write posts for the purpose of advocacy and to discuss issues related to poverty (Maurer, 2009, p.115). In addition, a homeless individual's ability to express a unique personal story or set of opinions serves as a form of social capital or a source of recognition. Thus, the power of the homeless blog lies in its interpretive structure through which motives, expectations, and perceptions are shaped and analysed (Bazerman, 2002, p. 13).

While social media provides many advantages to the homeless community, it is important to note that there are also dangers associated with online activities. Many of the drawbacks relate to the fact that homeless communities are a vulnerable population. In a study conducted by Taylor (2011), findings indicated that some volunteers and outreach workers believe that social media sites such as Facebook, may increase this vulnerability (p. 18). For instance, one youth worker stated that he will not "link his Facebook page to his centre's website, and that he screens all people who are added to the centre's Facebook page...[to eliminate] potential threats" (p. 18). In addition, a number of workers

at shelters are hesitant to provide access to social networking sites, particularly Facebook, because it can be used to “find Johns, locate drugs, or arrange meeting places to buy drugs” (p. 18). As such, outreach workers believe that there should be an emphasis on training initiatives that teaches homeless communities how to navigate online environments with safety in mind. In addition, it is important for social media sites created for homeless communities to be moderated by trusted individuals, such as youth workers, in order to protect the population from potential dangers.

2.7 Online Communities and the Homeless

As the homeless continue to adopt social media tools to engage in a variety of activities, it is important to consider how these individuals form communities and interact online. The study of online communities provides insight into how information and social capital spread through groups, as well as the nature of relationships that may exist between site members. Online communities are defined as “social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace” (Jones, 2006, para. 7). Online communities have four defining characteristics:

- 1) A minimum level of interactivity;
- 2) A variety of communicators;
- 3) A minimum level of sustained membership;
- 4) A virtual common-public-space where a significant portion of interaction occurs (Jones, 2006, para. 17).

Based on the definition and criteria established above, it is apparent that the structure of online communities is complex and relies on instances of communication and

participation over time. It is important to note that terms such as “minimum” and “variety” are used when describing levels of interactivity and communicators because both are dependent on the unique nature of the online community as well as the total number of members. For example, blogging and microblogging forums have different functionalities as well as expectations regarding content creation. It may be considered standard for communicators to contribute content to a blog once a month and contribute posts to microblogs once a day. As such, it is up to the researcher to define the minimum level of interactivity and the types of communicators within the environment under observation. In most cases, this is accomplished by examining a data sample over a period of time. In this study, I used these criteria to analyse whether or not there is evidence of an online community within Homeless Nation.

In online communities, the positions individuals occupy signify their degree of power and opportunity within the network (Van Dijk & Hacker, 2003, p. 324). For example, an outside or marginalized position leads to exclusion, while a position closer to the center of the community leads to greater opportunities to gather information or engage in discussion. The ability to process and discuss information allows individuals to take on membership roles and connect with peers, leading to the adoption of group behaviours and belief systems that are unique and identifiable by others (Juchniewicz, 2011, p.28). In essence, the community provides a framework and vocabulary through which peers can discuss ideas and share information, creating a system of values and beliefs that influence perceptions of self and the outside world.

The framework that is used to disseminate information can be described by the theory of social capital, which is rooted in the concept of social network analysis

(Johnson, 2004, para. 1). In essence, information is an intangible social resource, and access to it “depends on the relationship with the individual possessing the resource and where one is located in the social structure” (Johnson, 2004, para. 3). In order to access new resources, people must develop ties with individuals either above or below themselves in a social hierarchy (Johnson, 2004, para. 5). Based on the theory of social capital, “it is expected that people will use ties to access those with better quality resources than theirs in terms of life experience, knowledge, and employment status when searching for the information they need” (Johnson, 2004, para. 6). However, developing ties with people in other social groups is not without risks. These relationships come with increased vulnerability and the risk of rejection. As such, marginalized individuals can be cautious or guarded when pursuing information in such environments.

There are a number of risks associated with communication in networks, including whether or not an idea is accepted by members of the community (Chatman, 1996, p. 197). Also, fears regarding increased vulnerability or rejection can limit the number of personal details homeless individuals share with the community. In both cases, the willingness to share and receive information relies on trust (Chatman, 1996, p. 197). Studies on the subject revealed several anomalies, including the fact it is not uncommon for poor people to distrust others who reside in their social world (Chatman, 1996, p. 200). Instead of functioning inside of an “us” against “them” mentality, many homeless individuals have an “I” against “everyone” perspective (Chatman, 1996, p. 205). This mentality is a survival mechanism meant to demonstrate a specific role within a social system (p. 205). In other words, individuals are less interested in identifying with those in similar situations than they are in knowing their own place and determining how to

behave accordingly. Because communication within homeless communities relies on trust, studies discovered that certain members are designated as opinion leaders, which means that they disseminate information that is credible and reliable. These individuals are deemed by the community to be “honest, careful about claims and disinclined to deceive” (Chatman, 1996, p. 197). Opinion leaders often hold trustworthy positions in society such as outreach workers, youth workers, clergy, or shelter staff, and in many cases, the homeless provide these individuals with friend status in online communities (Hersberger, 2003, p. 243). The identification of opinion leaders within communities provides significant insight into the characteristics or social roles that provide an individual with influence, and as such, offers insight into the types of information that is valued by the community. While it seems that mentalities such as those discussed above would have a negative impact, the understanding of social roles can actually serve to benefit a network. These roles provide “shared expectations about the other. Social types provide clues as to ways in which to approach the other, influence one’s ability to seek information, and are an essential condition in the mutual sharing of ideas” (Chatman, 1999, p. 209).

2.8 Conclusion

The ability of the homeless community to navigate and communicate in online environments has a significant impact on the degree to which they can participate in mainstream society. Although there is still a great deal to be learned in regards to how homeless individuals utilize social media tools, this literature review examined some of the findings that researchers have uncovered thus far. The remaining sections of this study examine the issues of digital literacy, information seeking behaviour and online

communities in greater depth by observing the general behaviours displayed by users of Homeless Nation. The study results contribute to the existing body of knowledge and provide further insight into the online needs of the homeless community.

Chapter 3 Method

3.1 The Selection of an Online Environment

One of the most critical details of the study was the selection of an online environment that was suitable for observation. After reviewing the research objectives, I determined that the site had to satisfy three qualifying criteria:

- 1) Provide insight into online behaviours of the homeless community from a Canadian perspective;
- 2) Be established, have a stable member base and significant volume of user-generated content to allow for the examination of usage and communication trends;
- 3) Incorporate OSM features into its general framework.

The first online environment that I considered was a blog-based forum entitled Living Homeless: Our Write to Speak (<http://livinghomelessourwritetospeak.blogspot.ca>). The initiative was founded in 2010 by Barbara Schneider, a professor of communication studies at the University of Calgary. The goals of the site are to provide a public voice to homeless Calgarians, to promote discussions related to poverty and to encourage the development of relationships between the homeless and mainstream society (“Homeless exercise,” 2010, para. 2). While the scope of the site was appropriate, at the time of examination it was less than a year old and did not have a sizable user base or a sufficient amount of public content. Thus, I determined that it was not an appropriate candidate for this study.

The second site that I considered was the International Homeless Forum (<http://www.homelessforums.org/>). Founded in 2000, the goal of this initiative is to create a “place for current and formerly homeless people from around the world to connect with each other and supportive members of the community” (International Homeless Forum, 2000, para. 1). The site functions as an online discussion board where members can exchange information about events, resources and so on. While users are located all over the globe, the site can be organized by forums created for individual countries. Again, I discovered that the Canadian forum was small and contained less than fifteen message threads. As the volume of user generated content was not sufficient for examination, I decided that the site was not a suitable candidate for observation.

The final site that I considered was Homeless Nation (www.homelessnation.org) which “brands itself as a website by and for the homeless” (Pinchin, 2009, para. 7). It was established in 2003 by Canadian documentary filmmaker Daniel Cross, and functions as a networking site and blog. The central goal of the site is to provide a public forum where “Canada’s homeless community could share their stories and refuse to be ignored” (Homeless Nation, 2009, para. 2). The site is entirely Canadian in scope, has a user base of several thousand members and contains a significant volume of user generated content in the form of blog and video posts. Thus, I concluded that Homeless Nation met the three requirements for the study environment and selected it for observation.

3.2 Research Design

After examining the online environment and available content on the Homeless Nation website, I determined that the data sample would contain both quantitative and

qualitative data. This meant that data had to be gathered so that it could be a) numerically and statistically analysed and b) categorized according to content and context (Matthews & Ross, 2010, p. 141). In addition, the research objectives also required an examination of the structure of the online community. This called for analysis based on a) relationships between users and b) user centrality. Based on these criteria, I determined that a combination of content analysis and social network analysis provided the most suitable research design and was best suited to collect and analyze the data. Below are definitions of these theories and descriptions of how I applied them to the study.

3.2.1 A Definition of Content Analysis

Content analysis is a “technique for examining the categories that the data comprises and condensing them into fewer categories...It looks for the presence of words, phrases or concepts in a text and endeavours to understand their meanings and relationships to each other” (Matthews & Ross, 2010, p. 395). In a practical sense, it is conducted by coding texts into manageable categories according to words, phrases or themes in order to identify the intentions and communication trends of an individual or group (Palmquist, n.d., para. 1). The process of content analysis begins by selecting a sample from the data and establishing coding categories based on selective reduction. Codes are then rigorously tested in order to ensure validity and reliability, and are often broken down into smaller units (such as subcategories) to prepare data for interpretation and analysis (Palmquist, n.d., para. 1). During this phase, three main criteria must be met in order to ensure the reliability of content analysis: stability, reproducibility and accuracy (Palmquist, n.d., para. 1). When these criteria are met, results are said to serve as a representation of phenomena observed in the data sample.

In this study, content analysis was applied to both quantitative and qualitative data. This allowed for the analysis of data from both a statistical and textual perspective, which provided insight into usage trends and textual context. Quantitative content analysis was used to “count manifest textual elements” (Weber, 1990, p. 37). Qualitative content analysis was used to account for “syntactical and semantic information embedded in the text” (Zhang & Wildemuth, 2008, para. 7). In this study, grounded analysis resulted in the emergence of content categories, which occurred after several rigorous examinations of the data sample and the identification of noted trends in the topics and themes discussed in blog and video posts (see section 3.4). Then, these content categories were used to develop code manuals which defined how each piece of data within the sample was categorized for analysis purposes (see Appendices B and C). To add an additional layer to the analysis, the data sample was uploaded into the online tool Netlytic (<http://netlytic.org/>) which allowed for the inspection of data on a word level and the examination of trends in word and phrase usage over time. A detailed account of this analysis is provided in chapters 4 and 5.

3.2.2 A Definition of Social Network Analysis

Social network analysis is defined as the mapping and measuring of relationships and information flows between people or groups, and provides visual analysis of communication systems (Krebs, 2011, para. 1). The primary function of such examinations is to understand the patterns of interaction that exist within communal structures. Analysis is based upon a) the examination of individual users, b) the relational ties that exist between users and c) the examination of network diagrams that provide a conceptualized structure of existing relationships (Wasserman & Faust, 1994, p. 34). As

such, one of the most important steps in conducting social network analysis is the construction of network diagrams. These consist of a number of nodes (each corresponding to a member of a group) and links, which represent a communication connection between two users (Krebs, 2011, para. 3).

In this study, social network analysis was used to explore the relationships that exist within the user community of Homeless Nation. This analysis was achieved through the examination of network diagrams, all of which were structured as comment networks (connections are representative of the instances of comments written on posts). Based on this model, it was possible to examine the social roles and characteristics of central and marginalized users. The online tool ORA (<http://www.casos.cs.cmu.edu/projects/ora/>) was used to generate network diagrams for this analysis. It also ran calculations that identified users with the largest number of connections and the highest rates of content creation. Both of these calculations were used to determine overall influence within the community. Details of this analysis are provided in chapters 4 and 5.

3.3 Selection of the Data Sample

After the research design was established, the next step was to select a data sample for observation. A number of factors were considered in this process. First, due to the loss of moderation and forum closures that Homeless Nation suffered in 2010 (see section 1.5), I decided that the study would focus on content and communication patterns recorded on the site between the years 2008-2009. Since the site was highly active and functioned in accordance with its original mandate during this time frame, I determined

that the data sample would provide insight into how the community utilized the online environment.

Second, I determined all data would be collected manually. After considering the time frame allotted for the completion of the study, as well as the volume of content created between the years 2008-2009, I decided that it was necessary to select a subgroup as a representative sample of the site as a whole. After examining the structure of Homeless Nation, I discovered that content could be organized according to five forums: Victoria, Vancouver, Toronto, Montreal, and St. John's. As each one serves as a microcosm of Homeless Nation, I decided that the data sample would be collected from one forum. After completing counts of users belonging to each forum, I calculated that out of a total of 4,000 users, 50% (2,000/4,000) were members of the Vancouver forum. As such, the group was large enough to represent the site as a whole (Figure 3.1).

As content analysis calls for probabilistic approaches of data sampling in order to "ensure the validity of statistical inference" (Zhang & Wildemuth, 2008, para. 4), I decided that the data collection would take place within the Vancouver forum in accordance with stratified sampling methods.

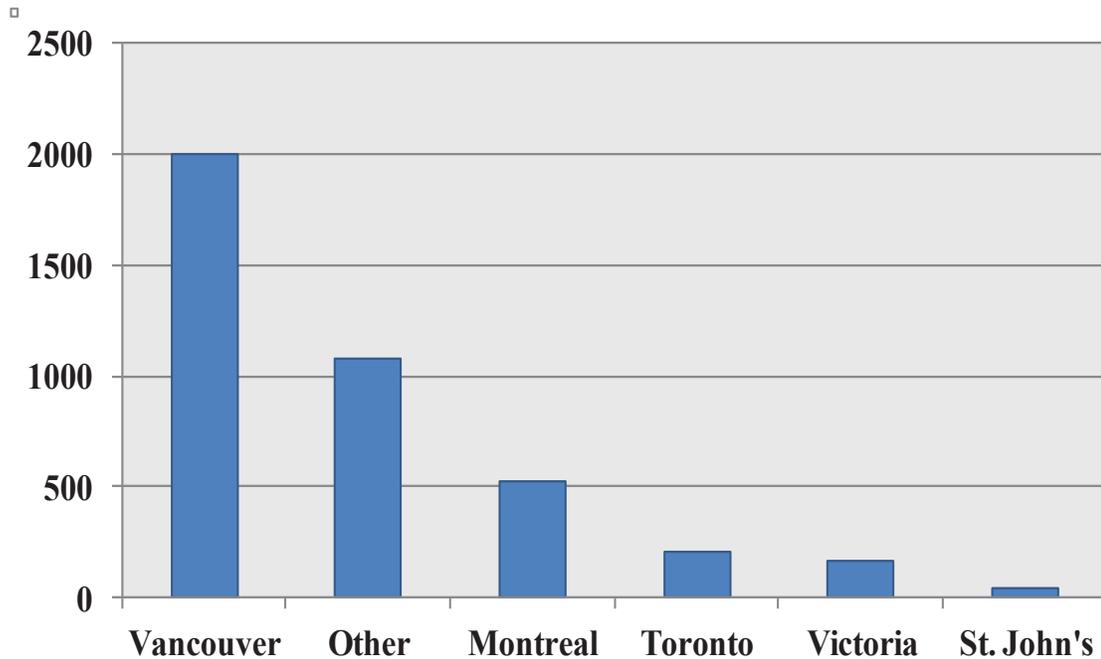


Figure 3.1. Number of users in each Homeless Nation forum.

3.4 Data Collection and Preliminary Analysis

Data stands in place of a social reality being studied (Matthews & Ross, 2010, p. 141). As such, researchers attempt to capture data that represents the reality or social phenomenon a study is trying to explain (Matthews & Ross, 2010, p. 141). In order to ensure the data sample collected over the course of this study reflected behaviours of the Homeless Nation user community, I complied with the basic tenets of content analysis and social network analysis in order to guarantee accuracy in the results. It is important to note that due to the nature of content analysis, data collection and preliminary analysis began simultaneously. Below is a detailed account of this process.

3.4.1 Step One: Preparing the Data

The first step in the data collection process was to prepare the raw data, meaning that it had to be captured from Homeless Nation as written text (Zhang & Wildemuth,

2008, para. 7). Using stratified sampling methods, content including blog posts, video descriptions and comments (Figure 3.2) were manually copied and pasted into an Excel spreadsheet. This method ensured that a) posts created by users of all social roles were represented in the data sample and b) representation was proportionate to the total population (see section 3.4.3). In total, 691 posts were collected. Also, information such as the blog/video title, creator, date, number of views and comments, and the names of commenters was also recorded in Excel (see Appendix A). As the raw data was captured from Homeless Nation in a textual format, transcription was not required.

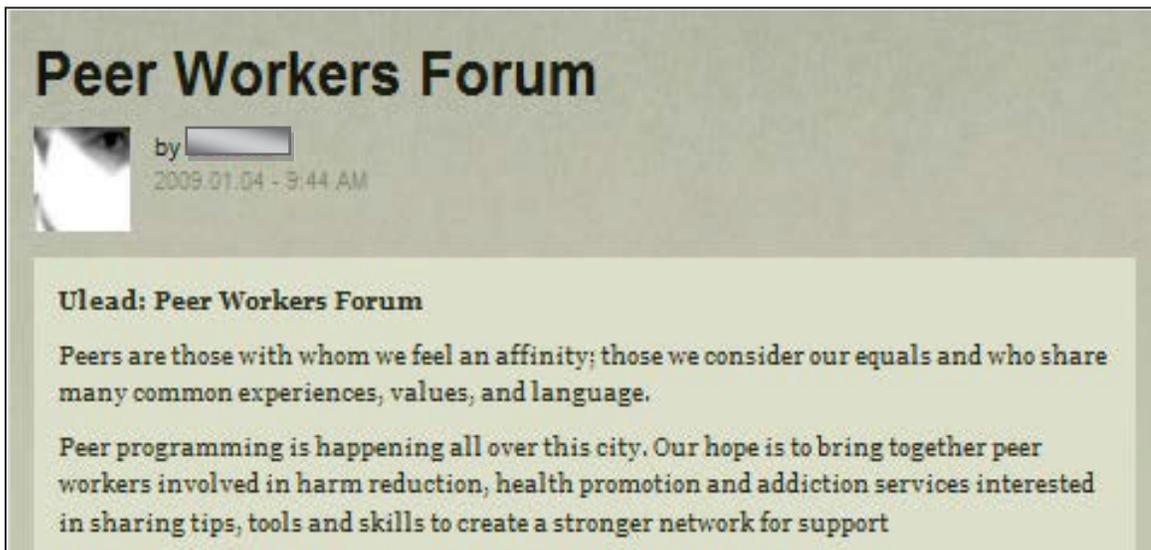


Figure 3.2. Example of a blog post as it appears in Homeless Nation.

3.4.2 Step Two: Identify Units of Analysis

A unit of analysis refers to the “basic unit of text to be classified during content analysis” (Zhang & Wildemuth, 2008, para. 8). This study called for examinations of both users and content, and as such, both required defined units of analysis. In regards to users, I realized that the fulfillment of research objectives (section 1.2) required an

examination of social roles. As such, analysis relied on quantitative content analysis and involved counts and averages of the number of users occupying specific social roles. Thus, the basic unit of analysis for users is their designated user category (see section 3.4.3).

In regards to site content, I decided the fulfillment of research objectives (see section 1.2) required an examination based on the topics and themes discussed in blog and/or video posts. As such, both quantitative and qualitative analysis was required. During the process of manual data collection, I read all posts in the data sample and determined that for the most part, each focused on one central idea. Then, posts were assigned with a thematic code in order to represent an issue of relevance to the research questions (Zhang & Wildemuth, 2008, para. 9). As such, the thematic code is the unit of analysis for site content (see section 3.4.3).

3.4.3 Step Three: The Creation of User and Content Categories

At this stage, I re-read all study data to increase my familiarity with the content and note trends regarding topics of discussion. Next, the process of developing categories commenced. First, a coding scheme was developed to describe the user categories, as it was important to determine what types of users were in the community and how they communicate. The categories were based on the social role these individuals occupy. Fortunately, most site users volunteer this information in their public profile (Figures 3.3). When a social role was not provided, the user was classified as unknown. In total, eight user categories were identified: activist/advocate, formerly homeless, homeless, Homeless Nation (HN) staff, mainstream, outreach worker, student and unknown.

Definitions of these categories are available in the user coding manual (see Appendix B). When a blog post or comment is posted in Homeless Nation, it is automatically tagged with the user name of the creator. As such, the user categories defined in the coding manual were used to determine the social role of both posters and commenters.



Figure 3.3. Example of a user categorized as an activist/advocate.

When examining the posts in the data sample, I determined that content displayed either narrative or administrative characteristics. The former provided accounts of events or discussed opinions, thoughts and feelings. The latter focused on the dissemination of factual content without interpretation, such as event announcements or shelter hours. With these two characteristics in mind, a number of scholarly sources were consulted to appropriately define content categories and utilize proper vocabulary. These included lists of content headings compiled by Bob Matthews and Liz Ross (2010), the Contemporary Thesaurus of Social Science Terms and Synonyms, and the Merriam-Webster Thesaurus (www.merriam-webster.com/thesaurus.htm). In total, fifteen content

categories were developed: activism, announcement, article, covert agenda, criticism, imparting information, memorial, miscellaneous, overt agenda, personal history, promotion, seeking information, seeking support/validation, seeking volunteers, and social support. Definitions of these categories are available in the content coding manual (see Appendix C).

3.4.4 Step Four: Testing User and Content Categories

In the case of both user and content categories, constant comparative method was used in order to guarantee the consistency of category definitions and code schemes, meaning that each new text assigned to a category was compared with those previously assigned to the category (Glaser & Strauss, 1967, p. 43). At this time, a fellow student in the Master of Library and Information Studies program at Dalhousie University also assessed a sample of user and content categories in order to test the coding schema for consistency. After both processes were completed, categories were refined and subcategories were created in order to accurately describe the themes present in each post. Then, I determined that coding consistency had been achieved.

3.4.5 Step Five: Coding the Data Sample

At this time, I applied the user and content categories to the entire data sample. Constant comparative method was continuously used to prevent “drifting into an idiosyncratic sense of what the code means” (Zhang & Wildemuth, 2008, para. 15). After coding had been completed, the entire data sample was read for a third time and all codes were checked during a final test for accuracy.

3.4.6 Step Six: Analyzing the Data Sample

After the coding process was completed, counts of user and content categories were conducted and averages were calculated to begin the analysis of the quantitative data (see Appendices D and E). In this process, the familiarity I had achieved through three readings of the data sample was an asset. During each reading, I compiled rigorous notes of observed trends across the data sample. After the final reading, all notes were compiled and reoccurring observations were flagged for further analysis (see chapter 5). In addition, I examined posts at a word level. In this process, the data sample was uploaded into the program Netlytic, a web-based system for automated text analysis (Netlytic, 2011, para. 1). Using of term clouds and stacked visualizations generated by the program, I observed conversation trends that developed between the years 2008-2009.

3.4.7 Step Seven: Analyzing the Network Diagrams

After examining the quantitative and qualitative data, I also studied the structure of the online community by creating network diagrams. To generate these visualizations, I built a matrix in Excel that tracked each instance of communication occurring between content creators and commenters (Figure 3.4). Then, the matrix was uploaded into ORA, a web-based system for network analysis. The program not only built network diagrams, it also ran calculations that allowed for the identification of the top creators and top commenters in the community.

	cisco	colinford	Cookie	Fraggle	Henry	Janelle	jhock	McBride	Mike	Shadow	Spy
admin					1					1	
Adrienne											
AHAMedia								1			
alexandra						1				1	
alynn											
anya											1
barbuchon			1								
brampre		1			1	1	1		1	1	
brett										1	
chantal_yogi											
Chris Aung-Thwin	1	1	1	1		1	1	1	1	1	1
colinford					1					1	
diversity								1			

Figure 3.4. Example of a matrix used to generate a network diagram in ORA.

3.5 Ethical Considerations

All data captured from Homeless Nation for the purposes of this study is in the public domain. As such, it is available for viewing by any individual with Internet access. As such, ethics approval was not required in order to collect or analyse the data sample.

3.6 Study Limitations

While content analysis and social network analysis are powerful research tools, they have a number of limitations that influence how studies are conducted. First of all, they are extremely time consuming, which places limitations on the size of the data sample (Matthews & Ross, 2010, p. 397). As such, analysis is limited to the confines of available data (Matthews & Ross, 2010, p. 397). In this study, the implications were that it was not possible to examine content from the entire Homeless Nation population and the data sample was confined to a sub-group of the Vancouver forum.

In addition, both theories have been criticized in the academic community because they do not examine the motives behind content creation or the establishment of relationships. In the case of content analysis, analysis is often focused on counts and statistics while ignoring the context of textual data (Matthews & Ross, 2010, p. 397). In the case of social network analysis, the meaning behind relationships is often ignored, as the central focus remains on existing ties (Tzatha, 2009, para. 1).

Finally, I discovered a number of limitations associated with the data sample. First, during the years 2008-2009, the city of Vancouver was preparing for the winter Olympics. This was a significant historic and geographic moment, and individuals living in Vancouver during this time were influenced by municipal policies and gentrification projects that were associated with the event. As such, further research may be required to determine the extent Vancouver stands as a representative sample of the site as a whole. Second, I relied on the self-identification of users in regards to their social roles during the data coding phase. Presumably they self-identified correctly, but there was no way to verify this data. Finally, as the data was confined to the years 2008-2009, future studies may be used to determine if the observed online behaviours hold true in the present day.

In order to account for these limitations, I rigorously examined qualitative data to determine the context of posts and understand why users are motivated to build communicative relationships with one another. Throughout the course of the study, I made every attempt to answer research questions from both a quantitative and qualitative standpoint in order to provide greater depth to the analysis.

Chapter 4 Findings

4.1 Homeless Nation and Digital Literacy

The first goal of this analysis was to examine whether or not the online environment of Homeless Nation helps to develop or strengthen digital literacy skills within the homeless community. For the purposes of this study, digital literacy was defined as the ability to disseminate knowledge, seek information and interact within an online community (Martin, 2005, p. 1). Based on this definition, four variables were examined: user categories, content categories, participation rates and format preferences. Below is a detailed account of the findings.

4.1.1 User Categories and the Frequency of Posts/Comments

In order to examine the amount of content created by user groups on the Homeless Nation site, I used the eight user categories (see section 3.4.3) to code raw data according to content creators. Then, counts were conducted to determine which user groups were responsible for creating the highest volumes of posts and comments. Results indicated that the homeless compose the largest user group, create the most posts and write the greatest number of comments (Figure 4.1). In total, 177 unique users posted content and/or comments on the Homeless Nation website between the years 2008-2009. Of this group, 35% (62/177) were identified as homeless. The number of homeless users who create content is significantly higher than other categories. For instance, the formerly homeless user group ranks second in terms of size, but only accounts for 16% (28/177) of users who create content.

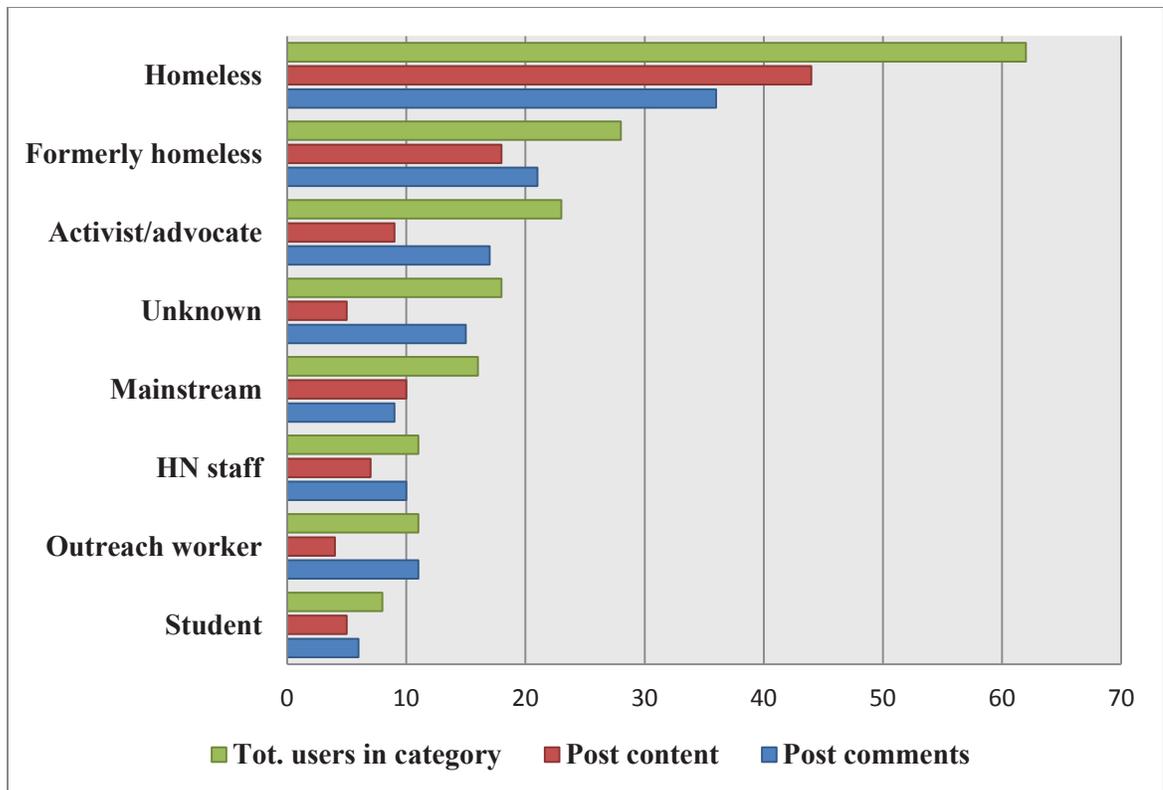


Figure 4.1. Number of users in each category and their frequency of content and comment creation.

While counts indicated that the homeless create the highest volume of posts and comments, they did not provide insight into why this was happening. In order to locate evidence, I examined the qualitative information within the data set. A number of blog and video posts provided explanations of the factors that motivate homeless users to contribute to the site. Many stated that content creation is cathartic and also leads to public discussions about poverty and homelessness. Below are two examples.

[Relating to the cathartic nature of content creation]: Homeless Nation has helped me out a lot in the last while. Anytime I have something on my mind I can blog

about it on the website and other people can give their opinion on [the issue].
(Squee, December 21, 2009)

[Relating to discussions about poverty]: [the site demonstrates] how people are dealing with poverty...[and] what kind of stuff is going on to help our situations. This site is for homeless by [the] homeless...let's make a difference. (Nova, February 10, 2009)

In addition, the data suggested that the online activities of peer groups motivated homeless users to contribute content. Results indicated that these users spend time reading posts and learning about the structure of the site and the expectations of the community before posting content themselves. After a comfort level is established, they relay their own experiences to the community. Below is one example.

So, after looking through a lot of peoples' pages and reading some blogs, I felt I am comfortable with this site enough to tell my story. Some things are left out since I don't know who all is on this site... I really hope what I said can help! I don't want to see kids go through hell when they don't need to. (Kandi420, November 21, 2009)

I also observed that content created by homeless users often relates or appeals to the community as a whole. Although these individuals may speak about personal feelings or situations, the posts indicate that they are consciously contributing to the community rather than simply speaking for themselves. In the examples above, the community is referenced as a source of advice, a discussion group, and a peer group. As such, homeless

users view the content they produce within the context of the greater community rather than from an individualistic standpoint.

Based on the results, I found that homeless users function as active participants on the Homeless Nation website, and are involved in the creation of posts and comments.

4.1.2 Content Categories and Site Usage Trends

In order to examine how Homeless Nation is utilized by the online community, I used the fifteen content categories (see section 3.4.3) to code raw data according to themes. Then, counts of the number of posts in each category were conducted to determine which content categories are most frequently used. Imparting information, criticism, and personal history were the top three categories, while seeking support/validation, memorial, and seeking volunteers ranked at the bottom of the list (Figure 4.2).

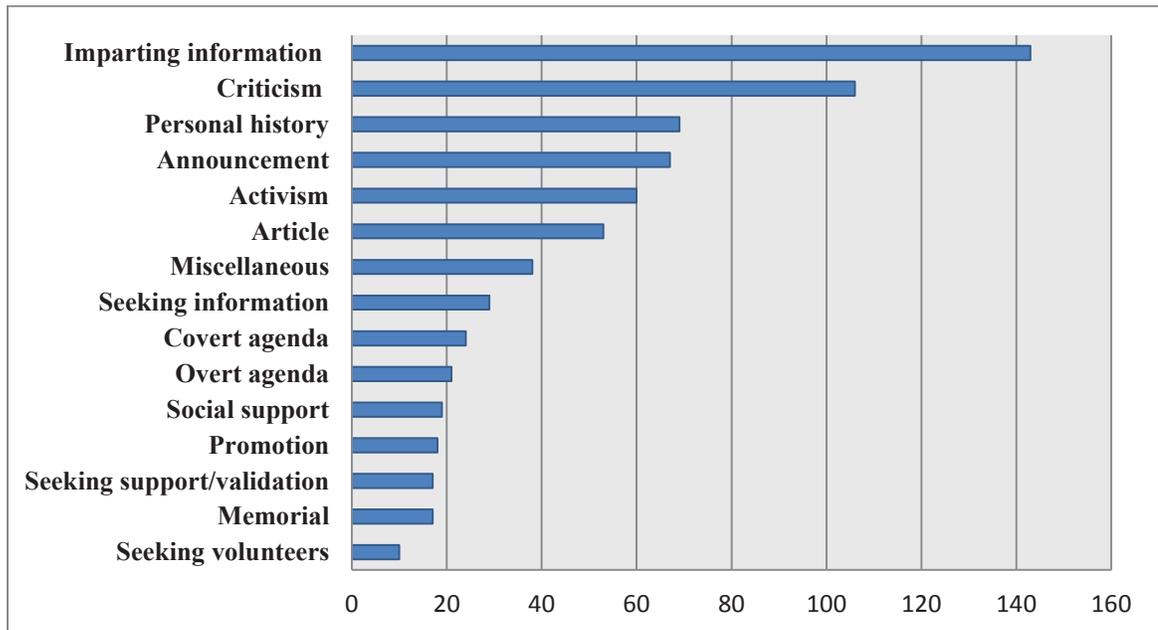


Figure 4.2. Number of posts in each content category.

Characteristics of the Top Three Categories

Of the 691 posts in the data set, 21% (143/691) were categorized as imparting information, 15% (106/691) as criticism, and 10% (69/691) as personal histories. These three categories are all narrative in nature and therefore reflect the opinions, thoughts, and feelings of the creator (see section 3.4.3). In order to gain insight into why these categories are popular within the community, I examined data derived from subcategories.

When I examined the five subcategories of the imparting information content category, I recorded counts of the number of posts and comments order to determine which topics are of significance to the community (Table 4.1). An interesting result was that the event outcome subcategory contained the most content, but ranked behind the service/shelter and government/legislation subcategories in terms of comments. This finding indicates that while individual users create the most posts about their experiences at events, instances of communication are more likely to occur around topics pertaining to the service/shelter and government/legislation.

Table 4.1. Number of posts and comments in the imparting information subcategories.

Imparting info. subcategories	No. of Posts	No. of Comments
Event outcome	46 (32%)	38 (19%)
Service/shelter	38 (27%)	61 (31%)
Government/legislation	33 (23%)	58 (28%)
Community member	14 (10%)	29 (16%)
Miscellaneous	12 (8%)	11 (6%)
Total	143 (100%)	198 (100%)

In order to understand the motivations for these behaviours, I also examined the qualitative data. I found that many posts in the event outcome subcategory contained personal recounts of events, and the tone of the creator indicates that he/she was excited to share the information. While the events referenced are relevant to the entire community, the narrative is often personal in nature. The comments reflect this personal nature, and are often congratulatory as opposed to offering further ideas for discussion. For example, in September 2009, Governor General Michaëlle Jean visited with several members of Homeless Nation in order to discuss issues of poverty and homelessness in Vancouver. Below is a homeless user's account of the event.

On Monday, I got to meet the Governor General of Canada. It was so exciting. I was so nervous. Wow she is such a cool lady. She was actually listening to what we all had to say. She was genuinely interested in our lives and experiences. It was absolutely amazing and I will never forget that experience.

Comment: Great to hear about this amazing opportunity! (McBride, October 1, 2009)

The nature of the content and comments posted in the service/shelter subcategory are somewhat different. They also impart information that is relevant to the entire community, but the tone is communal and invites continued discussion. Many comments also contain opinions, feelings or criticisms that continue the debate. Below is one example.

The last of the residents of the Howe Street Shelter have been offered interim housing and today, the last of them were shuttled off around the city. Originally

the Province and city had set Friday as the move-out date, but that changed this morning quite quickly. It was a sad day for everyone who tried so hard to keep the shelter open.

Comment 1: It's a sad day not only for former Howe Street Shelter residents - but for all shelter residents and for anyone fighting homelessness in Vancouver.

Comment 2: It is a sad day for the state of courage in humankind too. The shelter was one step forward and now this closing is two steps backwards for sure. I wish that regularly housed people would understand more about readjustment and healing and have the courage to offer the aid to push on through the rough gritty parts and create a community for the unhoused.

Comment 3: And my big thought was how are the folks complaining [going to] be expecting [the homeless] to move out from shelters which provide emergency support for people...if they just give up on them? (Vancouver Outreach Team, August 5, 2009)

To determine if the same trends as those noted above were evident in the criticism category, I examined the six subcategories for evidence of the intent of posts and comments. Again, I recorded counts of the number of posts and comments (Table 4.2). Results indicated that the society subcategory contains the greatest amount of content (31%) and comments (52%).

Table 4.2. Number of posts and comments in the criticism subcategories.

Criticism subcategories	No. of Posts	No. of Comments
Society	33 (31%)	147 (52%)
Olympics	22 (21%)	34 (12%)
Municipal government	20 (19%)	33 (12%)
Federal government	14 (13%)	41 (15%)
Miscellaneous	11 (10%)	18 (6%)
Provincial government	6 (6%)	8 (3%)
Total	106 (100%)	281 (100%)

In order to understand why users were utilizing this subcategory, I investigated the qualitative data and found that most content and comments relate to discussions regarding poverty and homelessness. While many of these posts provide opinions or thoughts, creators are not speaking about personal experiences. Rather, they examine poverty and homelessness from a social perspective and as a result, debate is not limited to specific user categories. All site users are invited to contribute their perspectives. Below an excerpt from one discussion on the topic of homelessness in Canadian society. It demonstrates how users of different social roles discuss poverty from a social perspective:

[Content posted by a mainstream user]: I don't know one person on this planet that enjoys being [homeless]... yet it's this insane thinking that contributes to the problem. After all we have to form some kind of belief system in order to ignore the problem...food banks are a band aid that solves nothing. Why do I need food in the first place - solve that problem and then good intentions become productive.

[Comment posted by an activist/advocate]: Good people have to run for office and a whole lot more good people have to get out and vote them in. We have to take control or things will never change for the better.

[Comment posted by a formerly homeless user]: People need to realize that once you get housed the real battle begins. You don't just wake up one day and know how to be financially responsible or do taxes...you don't know the best way to shop at a grocery store. These are all real world things that you don't learn at the bottom of a dumpster. You are impulsive and still live in survival mode. These are all skills that have to be learned (or re-learned) after living many years on the street.

[Comment posted by an outreach worker]: Lack of knowledge...contributes to people assuming that people want to be homeless...Welfare does not give you enough money to live a quality lifestyle, so many choose to live on the street, to go from shelter to shelter and keep what little money they have...so before saying that it is NOT worth helping the homeless think twice! (Judy101, April 20, 2009)

To determine if the same trends were also evident in the personal history category, I analysed the qualitative data. It is important to note that this category was not subdivided because it only contains content pertaining to the effects of poverty on users' lives. The data indicated that although personal information relating to the reasons creators are/were homeless is provided, the overall purpose of posts is to make sense of homelessness from a social rather than personal perspective. For instance, the videos in this category often involve interviews with the homeless about how they ended up on the street, discussions

of the general challenges faced by the homeless, and recommendations of resources and services. Below is an example taken from a video description and posted comments:

[An interview with a homeless user] looking at Vancouver's Single Room Occupancy (SRO) Hotels, the primary housing option for many people living in poverty in our city. There is much debate over the SRO, some want them saved as they are often the only available housing option for some people, others want them removed and replaced with more appropriate housing. Many SROs are known to be unsafe and in poor repair, where bed bugs, roaches and rats roam. While these rooms [have a] lower cost than apartments, they certainly are not cheap.

Comment: [name of homeless user] you flowed very well with info about SROs and what people can expect. Thanks for sharing this and bringing us into your living room.

Comment: Some SROs are part of the underground economy on the street. Shady landlords will rent the same room to multiple people. One person will live there, the others have their welfare cheques go to the landlord, the landlord will then give those people some of their shelter portion back but they are still without housing. It is like a really expensive cheque cashing place. It should be mentioned that not all SROs are shady, some are relatively good, with nice staff and attentive landlords who keep the buildings in good repair.

Comment: Was just in Shawinigan visiting a friend with a very nice 1-bedroom apartment. Rent = \$230. [Name of homeless user], it is inspiring that you keep rising to the challenges of your life and telling it like it is.

Comment: Curious if anyone is living in any of the 'renovated' SROs... It would be good to do a piece on what they look like now, and what the rent is. (Janelle, September 2, 2009)

After I examined the qualitative and quantitative data in the imparting information, criticism and personal history categories, two trends were apparent. First, all three categories are used by the study group to discuss poverty and homelessness in a narrative context. As such, they express the opinions, thoughts and feelings of the author. Second, discussions about homelessness are framed within a broad social context and are extrospective in nature. These conversations allow for universal participation, and a wide variety of perspectives are presented by the user community for debate. Finally, results indicate that all three categories are inclusive in nature, which creates wide appeal within the user community.

Characteristics of the Bottom Three Categories

Out of the data sample of 691 posts, the lowest ranking categories were seeking support/validation, which accounted for 2% (17/691); memorial, which accounted for 2% (17/691); and seeking volunteers, which accounted for 1% (10/691). The former two categories are narrative and the latter is administrative (see section 3.4.3). Thus, they reflect the opinions and thoughts of creators, but also information such as volunteer announcements.

In order to understand why these categories do not contain a great amount of content, I examined the qualitative data for evidence. I found that the nature and purpose of these posts is opposite from content in the top three categories. In other words, posts are written from an individualistic context and are introspective in nature. As such, they tend to be exclusive. Also, content does not relate to broad issues of poverty or homelessness, but rather speaks to individual circumstances. As a result, these posts do not have wide communal relevance.

Content in the seeking support/validation category often focuses on issues taking place in a user's personal life such as family problems or breakups. In many cases, the creator appears to desire sympathy or assurance. Below is one example.

I come back to [Vancouver] to get back together with my ex-girlfriend. She then proceeds to...breakup with me, at which point I am HEART BROKEN. I really LOVED this girl. The next day I find out that my father died of a heart attack...I honestly...don't feel anything, it's weird. Is it bad? (Crankcc, August 13, 2009)

While content in the memorial category does not seek to elicit sympathy or assurance, again, posts are exclusive in nature because they are directed towards individuals who were acquainted with the deceased as opposed to the entire Homeless Nation community. Many contain announcements for memorial services or tributes written by family and friends. Below is one example.

For those of you who knew [name], he was a very motivated man who cared deeply about his heritage, family and fellow man...it came as a shock when he

passed away recently. To those who knew him and to those who carry his torch in his name, there will be a memorial. (Vancouver Outreach Team, January 6, 2009)

The content in the seeking volunteers category is somewhat different from the examples above, because it is administrative as opposed to narrative in nature. As such, it contains information relating to calls for volunteers or equipment donations. However, the posts are exclusive in nature because they only have relevance for individuals who are in a position to volunteer time, specific skills or supplies. In addition, posts indicate that a limited number of volunteers are accepted, and selection is often on a first-come-/first-served basis. Thus, the entire community cannot feasibly participate. Below is one example.

We would like to ask if there are a couple of volunteers, speakers, singers and drummers who would come out and help us with setting up, or help us look after the elders and family members. There are a few things we still need such as, folding chairs for the elders. We have one tent in case it rains. Umbrellas would be much appreciated. We also need a coffee urn...and a portable PA system would be [greatly] appreciated. (Phoenician_ice, October 1, 2008)

Results indicate that the content in the bottom three categories do not have relevance to the entire community, but rather, disseminate information that has relevance to specific users.

Based on the examination of the quantitative and qualitative data, I determined that the top three categories (imparting information, criticism and personal history) contain extrospective content and are inclusive in nature. They are most often used to

discuss issues related to poverty and homelessness from a social perspective. These categories account for 46% (318/691) of all content within the data sample. The bottom three categories (seeking support/validation, memorial and seeking volunteers) contain introspective content that is exclusive in nature. They are most often used to disseminate information related to users' personal lives, tributes or personal availability for specific events. These categories account for 5% (44/691) of all content within the data sample.

4.1.3 Homeless Nation Participation Rates and Lurkers

Between the years 2008-2009, the Vancouver forum had 2,000 members. Based on the fact that there were 177 active users (referring to those users who posted content or comments to the blog or video forum) during this time, the participation rate was determined to be at approximately 9%. This rate is consistent with the findings of a previous study by Russo and Peacock (2009) which found that the average participation rate in online communities is 9% (para. 8). Based on this information, the rates I observed in the Vancouver forum during the study period are within the normal range.

The next phase in the study was to determine how lurkers (referring to passive users who do not create content or comments in the blog and video forum, but view posts) use of Homeless Nation. First, I recorded the number of views each blog and video post received. Then, I organized posts according to content category. Results indicated that imparting information, criticism, and personal history were the top three categories, while seeking support/validation, memorial, and seeking volunteers ranked at the bottom of the list (Figure 4.3). These results are consistent with the findings in the previous section, suggesting that the same three categories are popular among both content

creators and lurkers (content consumers). In addition, the high number of views received by blog and video posts indicates that members behave as information consumers, and that such activities are an important use of the site.

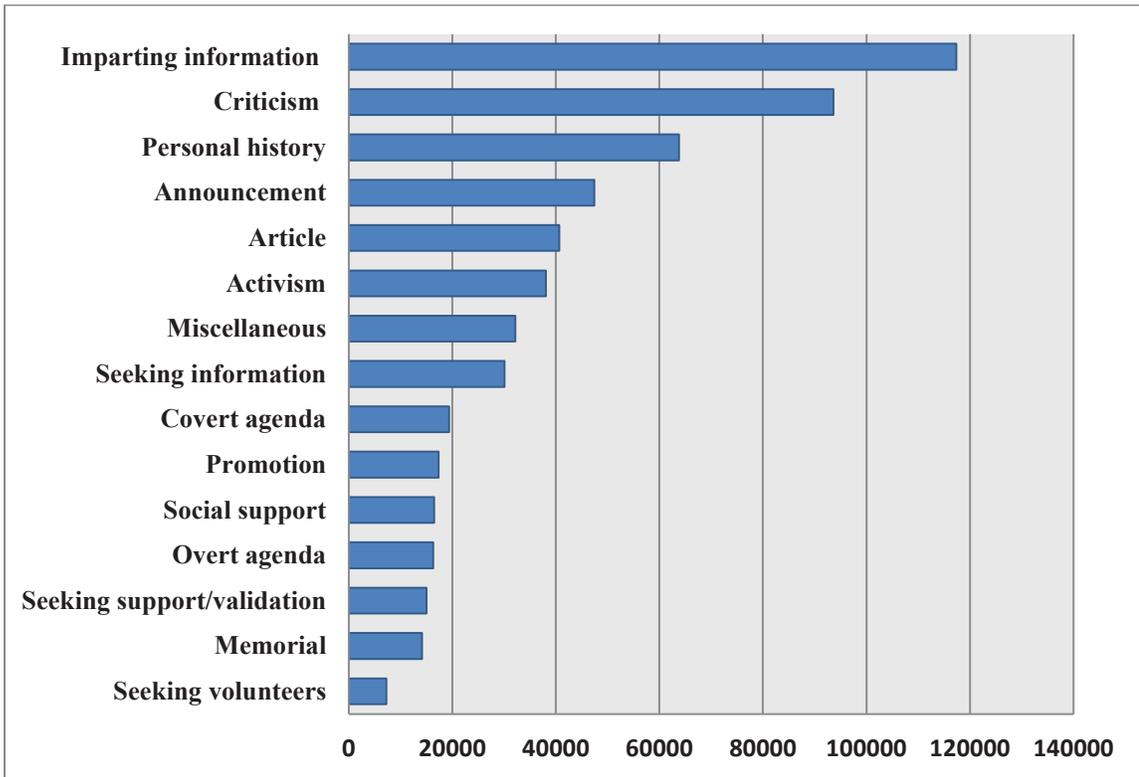


Figure 4.3. Number of views in each content category.

4.1.4 Blog vs. Video Posts

Homeless Nation allows users to post content as either written accounts or videos, and I wanted to know if the user community gravitates towards one format over the other. If so, were these behaviours related to digital literacy skills or other factors such as peer influence? To measure if there were differences in the rates that blog and video posts were created and accessed, I recorded the number of posts, comments, and views received by each format, and then calculated averages. Results indicated that while

videos account for 10% (71/691) of the total number of posts on the Homeless Nation site, they receive on average four times as many comments and twice as many views as blog posts (Table 4.3).

Table 4.3. Comparison of blog and video formats based on the number of posts, comments and views.

Post type	No. of posts	No. of comments	Average no. of comments per post	No. of views	Average no. of views per post
Blog	620	880	1	466,695	753
Video	71	309	4	103,084	1,452
All posts	691	1,189	2	569,779	825

Next, I examined that qualitative data in order understand why video posts receive on average more comments and views than blog posts. One observation was that videos are often promoted by their creator to the entire user community in the blogging forum. In many cases, the creator appears excited to share details of the project with the community. In doing so, he or she explains why the video has relevance to issues of poverty and homelessness, and provides positive outcomes of the filming experience.

Below is an example of a blog post that promotes a video entitled “Signs.”

Had a great workshop today with some stellar folks at the Gathering Place. We made up some signs that brought awareness [to the fact] that not all panhandlers are out to just get drugs with the money they raise. [Some] live on welfare or a minimum paying job is not cutting it... I was amazed at the dialogue we created while out on the streets today...look for a video on this soon. (Jhock, May 21, 2008)

When “Signs” was posted to the site, it received seven comments and 1,941 views, both of which are higher than the average rates.

The qualitative data also provided evidence the blogging forum is promoted by users, but for an entirely different purpose. Posts suggested that users have conversations with peers outside of the Homeless Nation online environment, and encourage these individuals to join the site. Thus, this type of promotion is for the purposes of recruitment. As such, these promotional interactions occur on a personal level and do not appeal to the community as a whole. Below is one example.

I guess I've been around too long to not have a [Homeless Nation] account. I've never been a fan of blogging b/c my memory of blogs were just those stupid pointless drama journal entries that blogs originally were. [Name of formerly homeless user] explained to me how the blog has evolved...how apparently now blogs can be informative...I've been converted and give in. (Smoke_a_Jae, March 6, 2009)

Results indicate that promotion by peers is influential within the Homeless Nation community. While video posts receive on average four times as many comments and twice as many views as written posts, they are also promoted by their creators which may provide additional incentive to view them. Although blog posts do not receive as many comments or views, promotion by peers exists for the purpose of recruitment.

4.2 Homeless Nation and Information Seeking Behaviours

The second goal of this analysis was to determine what information seeking behaviours homeless individuals display when using the Homeless Nation website.

Specifically, the goal was to examine how informative content related to resources, services and events was gathered and disseminated within the online community. As mentioned in the Methods chapter (section 3.4.3) there are five informative content categories: activism, announcement, article, imparting information, and seeking information. I analysed these categories for evidence of information seeking behaviours, which are defined as the ability to recognize when information is required, as well as locate, evaluate and use such information (Bawden, 2008, p. 52). Based on this definition, four variables were examined: the presence of direct and indirect questions, user categories, informative content categories, and participation rates. Below is a detailed account of the findings.

4.2.1 Direct and Indirect Questions

In order to examine the information seeking behaviours of Homeless Nation users, I searched for instances of direct or indirect questions in the seeking information content category. Also, I examined posts to discover whether or not questions receive responses from the community. In this stage of analysis, I coded posts as either direct or indirect, and then conducted counts (Table 4.4). Results indicated that direct questions receive over four times as many posts, comments, and views as indirect questions.

Table 4.4. Number of posts, comments, and views of direct and indirect questions.

Seeking information	No. of posts	No. of comments	No. of views
Direct question	24 (83%)	95 (85%)	24534 (82%)
Indirect question	5 (17%)	17 (15%)	5524 (18%)
Total	29 (100%)	112 (100%)	30,058 (100%)

Next, I examined the qualitative data to better understand why users post questions to the site. I observed that many questions are personal inquiries, and involve activities such as locating housing or searching for missing persons. In most cases, responses were posted from all user categories in the form of comments. It is unfortunate that the blogger typically did not respond to comments, as it was impossible to determine the usefulness of the responses. Below is an example.

Can anyone from Vancouver let me know if this hostel is legit? And if it is fill me on the pros and cons.

Comment: ...I do not know anything about this hostel either, sorry. But if you're looking for a good hostel in van. there is one called Ivy House... I've stayed there a number of times and it has been good each time. (kstate78, March 12, 2009)

When I examined the quantitative data within this category, I discovered four questions posted by homeless users and outreach workers for the purpose of gathering necessary information and equipment to record videos for the Homeless Nation website. In total, these questions made up 14% (4/29) of all questions posted to the site. Two of the questions involved setting up interviews with homeless teens in Burnaby, British Columbia. The purpose of these interviews was to learn about services and shelters in that locale. The remaining two questions involved gathering information and stories for inclusion in a digital memorial. The responses to these questions indicate that the requests were met with enthusiasm, particularly by HN staff, and the poster is encouraged to pursue their idea. Below is an example.

Recently I have noticed quite a few youth/young adults around the...Burnaby area - panning and doing the squeegee thing. If anyone knows the people out there, please contact me. I am interested in talking to them about what is going on for them, maybe doing a video blog. What services they are accessing - if any - what the challenges/benefits of being homeless in the burbs compared to Vancouver, what responses they are getting from residents and police etc.

[Comment from HN staff]: Good heads up. Yes a video blog would be a great idea.

[Comment from HN staff]: I know this service that does outreach in the tri cities. Give me a call and we can chat about hooking you up. I have been planning to do a video with them for, well for a long time so maybe this is the perfect opportunity. (Alynn, August 13, 2008)

4.2.2 User Categories and the Dissemination of Information

In order to examine which category of user disseminates informative posts with the highest frequency, I used the eight user categories (see section 3.4.3) to code raw data in the five informative content categories. Then, I conducted counts. Results indicated that Homeless Nation (HN) staff, formerly homeless users, and activists/advocates disseminate the largest amount of informative posts (Figure 4.4). Out of a total of 341 informative posts, HN staff created 29% (98/341), formerly homeless users created 22% (75/341) and activists/advocated created 17% (58/341).

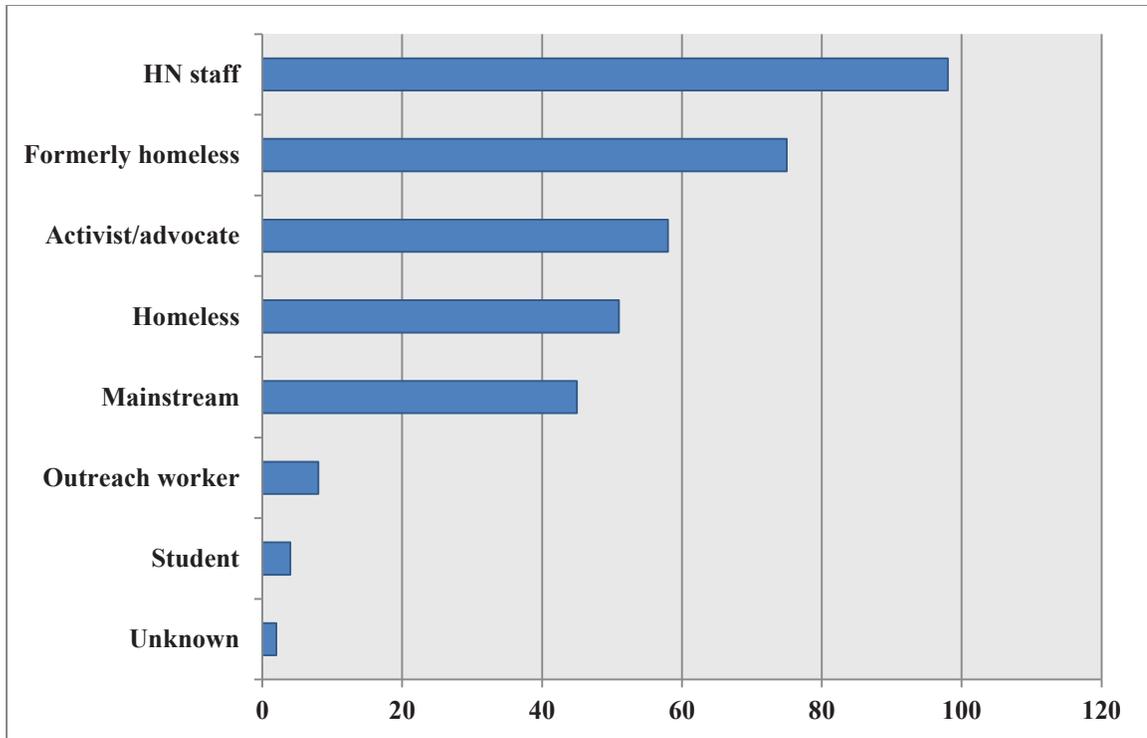


Figure 4.4. Number of informative posts according to user category.

I was surprised to find that outreach workers create significantly less informative posts than HN staff, as both categories have similar outreach responsibilities within the community. In addition, both groups are the same size, each composing 6% of the total number of active site users. To gain further insight into this matter, I examined the qualitative information within the data sample for evidence. I discovered that collaborative relationships exist between HN staff, formerly homeless users and outreach workers. These relationships are not contained to the online environment of Homeless Nation, but often represent partnerships that exist between Homeless Nation staff and external organizations, such as the Carnegie Community Action Project (CCAP) and the Citywide Housing Coalition (CHC). There is evidence that cross-posting occurs, as HN staff or formerly homeless users often distribute announcements or listserv emails created

by CCAP or CHC to the Homeless Nation community through the blogging forum.

Below is an example of an announcement that was posted by a formerly homeless user.

Title: Vigil for homeless and housing begins today

From: [name of outreach worker]

For Immediate release: Citywide Housing Coalition (CHC) and several other groups of concerned citizens will begin an overnight vigil at 3PM today...The candlelight vigil is intended to challenge federal candidates and politicians to support permanent restoration of the national social housing program. Citizens want to remind politicians there are tens of thousands of homeless Canadians, plus many more without adequate, affordable housing. Solutions to their issues should be part of the election discussion. The resurrected national program would enable communities, non-profits, and co-ops across Canada to build thousands of mixed-income social housing units every year across Canada, as they did in the past. (Mrmcbinner, October 6, 2008)

Based on the results, I found that information dissemination is a highly collaborative process within the community. As such, the responsibility of promoting resources and services does not belong to one user group. Rather, online behaviours reflect partnerships between organizations that exist within the physical community which work to disseminate information to the largest number of individuals as possible.

4.2.3 Examination of Informative Content Categories

In order to examine the types of information posted on Homeless Nation forums, I used the five informative categories to code raw data according to theme. Then, I conducted counts to determine which categories are most frequently used. Results indicated that imparting information was the top category and seeking information was at the bottom of the list (Figure 4.5). Of a total of 352 posts, imparting information accounted for 41% (143/352) and seeking information accounted for 8% (29/352).

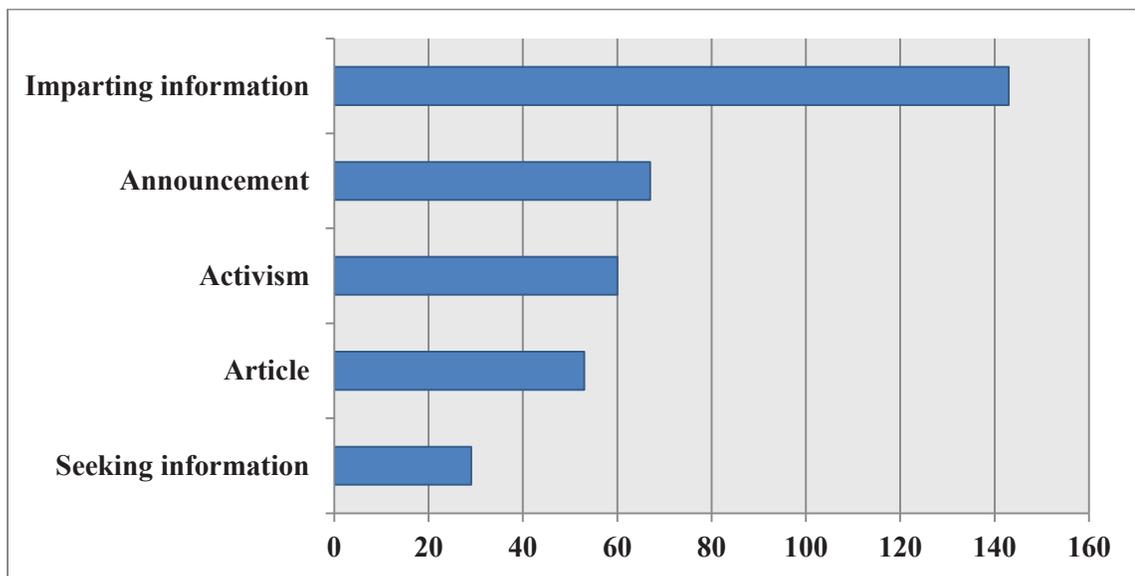


Figure 4.5. Number of posts in the informative content categories.

As previously established in Table 4.1, the imparting information category contains a high number of posts describing event outcomes, and a high number of comments discussing services and shelters. In this stage of the study, I wanted to determine if these subcategories are also of significance for information dissemination and seeking processes. To complete this analysis, I uploaded the informative posts into Netlytic and examined the common phrases and words that appear in this content. In total, 352 posts were included in this investigation. Stop words (frequently used words

that members of the Homeless Nation community disseminated information regarding council meetings or news articles that related to these closures. Also, the posts encourage community members to take action and protest closures in the form of marches, demonstrations, and letter writing campaigns. As such, Homeless Nation users do not discuss housing opportunities, but rather use the site to debate and protest cuts to housing programs. Below is one example.

Hello social housing supporters,

Re: Send a letter Monday to keep shelter open.

Please take a moment to read the report on the Howe Street shelter below. As you may know, it is VERY LIKELY that Housing Minister Coleman will decide to close the Howe Street emergency low barrier shelter sometime this week. Please take 2 minutes and send Coleman and the mayor a quick email to let them know you want this shelter to stay open. (Mrmcbinner, May 26, 2008)

The results indicate that in many cases, informative content is not used to promote services within the community. Rather, it is used to discuss events that pose a threat to existing services, and debate what actions can be taken to raise community awareness or prevent service closures. As such, these posts serve as indirect means to discuss issues related to homelessness rather than simply disseminate information.

4.2.4 Informative Content Categories and Lurkers

In this phase of the study, I wanted to understand how lurkers (referring to passive users who view rather than create or comment on informative content) make use of

Homeless Nation for information seeking purposes. Results were consistent with the activities of informative content creators in that imparting information was the top category, accounting for 43% of all views, and seeking information ranked as the bottom category, accounting for 11% of all views.

As previously established, content in the imparting information category is narrative in nature. It not only provides information about a service, but also accounts for the experience using a service. Thus, readers are provided with background information regarding community resources, and are also told what it is like to use that resource. Based on these two pieces of information, the homeless can set realistic expectations regarding procedures and outcomes. Below is an example from the qualitative data sample.

A few weeks ago I was shown an easy way to find housing threw [sic] www.Craigslist.com. Place an ad on the site explaining who you are, your age, your situation and how much you can pay for rent. When I did this a few weeks ago I got a call back about 24 hours later. The place is a 2 bedroom bsmt. suite shared accommodation...and the guy had no problem filling out an intent to rent form which is a plus. It's hard finding a place where the person your renting from will fill out the forms for welfare. So ya if anyone out there is having trouble finding a place try this idea because it works take my word on it! (Squee, March 2, 2009)

In contrast, the informative categories announcement, article, and activism are administrative in nature, meaning they provide information in the form of

announcements. As such, they provide service details or contact information, but do not provide insight into what can be expected when using a service. Below is one example taken from a series of blogs entitled “These are the Services in your Area” which are posted by HN staff.

For free legal advice...the U.B.C Law Students' Legal Advice Program provides a great opportunity for everyone. [Name of students] can be found, sitting quietly on the 3rd floor at the Carnegie Centre. (Vancouver Outreach Team, June 12, 2008)

Based on these examples and the nature of posts in the informative content categories, I discovered that Homeless Nation users gravitate towards information that is presented in a way that not only provides details about a service, but also provides expectations regarding service use based on the dissemination of personal experiences.

It is important to note that the category seeking information, which ranks last in terms of views, is also classified as a narrative category. However, the questions posted are based on personal inquiries, and in many cases are not relevant to the larger community. As such, they do not receive a large number of views. Below is one example:

Today I went to the...welfare office to see if my birth certificate had arrived or not. After asking for my new birth certificate I was told that if welfare has peoples ID on file welfare will not get new ID for them...If welfare won't get me ID, where do I go for new ID? (Brampre, July 31, 2009)

Based on the results, I determined that the Homeless Nation user community gravitates towards information that is presented in a narrative form. As such, they are not only informed about a resource, but are provided with a set of realistic expectations.

4.3 Homeless Nation and the Online Community

The third goal of this analysis was to examine whether or not the Homeless Nation community fosters online relationships. For the purposes of this study, online communities were defined as social aggregations that emerge from the Internet when a group of people carry on public discussion over a period of time, with sufficient human feeling, to form webs of personal relationships in cyberspace (Jones, 2006, para. 7). Based on this definition, four variables were examined: user categories, total centrality, in-degree centrality, and out-degree centrality. Below is a detailed account of the findings.

4.3.1 Description of the Homeless Nation Community

In order to examine the ties that exist between users, I built a network diagram of the community using the online tool ORA. The diagram is modeled as a comment network, which means that all connections are representative of one user posting a comment on a post created by another individual (Figure 4.8). Each user is represented as a node, and the connecting lines between nodes indicate at least one instance of communication. The network becomes dense at the center, as this is where the greatest number of connections and users exist.

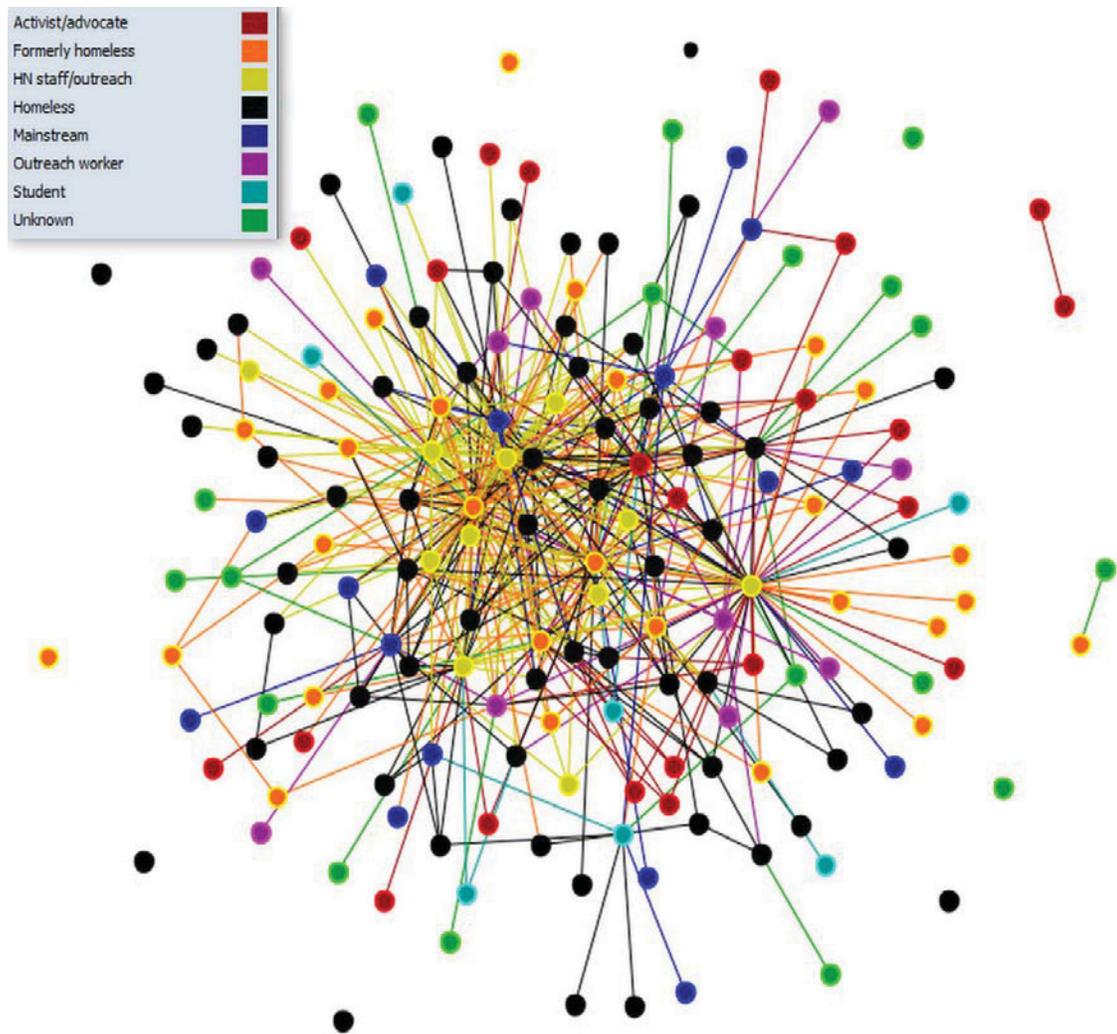


Figure 4.8. Network diagram of the Homeless Nation network.

Upon examination of the network, I found that a variety of user groups are situated at the center, indicating that they are well-connected. These groups are the homeless, formerly homeless and HN staff. Thus, I concluded that communicative relationships are established between homeless and mainstream users. In addition, users who are marginalized within the network (those who exist on the edge and have no connections to the community) also belong to a variety of user groups including the homeless, student, formerly homeless, activist/advocate, student, and unknown. To

understand why certain individuals are marginalized and others are not, I examined the data sample and discovered that isolated users post content but do not receive any comments. In addition, they do not comment on posts written by others. Thus, marginalization within the community does not occur because of social roles. Rather, it is based on an individual's rate of participation within the network.

4.3.2 Central Network Users based on Total Centrality

In order to determine the top ten most influential users in the Homeless Nation network, I used the online tool ORA to calculate the total degree of centrality of all users included in the data sample (Table 4.5). The total degree centrality represents the “individuals or organizations who are linked to many others and so, by virtue of their position have access to the ideas, thoughts, beliefs of many others” (Carley, 2011). The users who rank high on this metric “have more connections to others in the network” (Carley, 2011). The results indicate that of the ten most central members, HN staff account for 40% (4/10), formerly homeless account for 30% (3/10), activist/advocate account for 10% (1/10), homeless account for 10% (1/10), and mainstream account for 10% (1/10). As such, HN staff have the highest number of communicative ties with users in the network, and have access to the largest amount of information. The network diagram below (Figure 4.9) provides a visualization of the top ten central members in the network. These users are represented with blue nodes.

Table 4.5. The top ten most influential users based on total centrality.

Rank	HN User Name	HN User Category	Value*	Unscaled**
1	Janelle	HN staff	0.207	73.00
2	Jhock	Formerly homeless	0.201	71.00
3	Vancouver Outreach Team	HN staff	0.150	53.00
4	Fraggle	Formerly homeless	0.136	48.00
5	Chris	HN staff	0.125	44.00
6	Colin	HN staff	0.088	31.00
7	Blackbird	Activist/advocate	0.079	28.00
8	McBride	Homeless	0.068	24.00
9	Ben	Formerly homeless	0.062	22.00
10	mrmcbinner	Mainstream	0.062	22.00

*Value refers to the normalized value of degree centrality divided by the total number of possible connections within the network.

**Unscaled refers to the number of communications going in an out from a specific user.

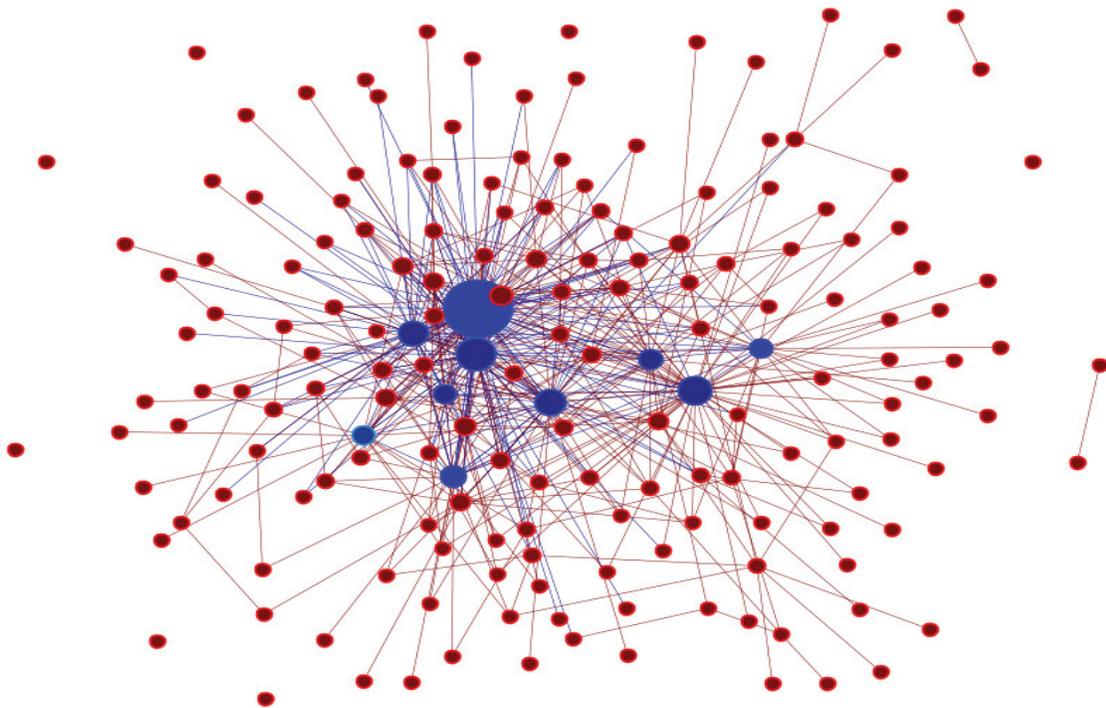


Figure 4.9. Network diagram of the top ten users based on total centrality.

4.3.3 Influential Content Creators based on Out-Degree Centrality

In order to determine which users are prominent content creators within the network, I used the online tool ORA to measure the out-degree centrality of all users in the data sample. This refers to users who are “able to exchange ideas with many others, or make many others aware of their views” (Carley, 2011). These individuals are said to be influential users within the overall communication structure (Carley, 2011). It is important to note that out-degree centrality is not necessarily based on the amount of content a user creates, but rather on the number of comments their content receives. High comment volumes indicate that content is resonating with the community and is deemed to be of value.

Results indicate that of the ten most influential members, 40% (4/10) are HN staff, 30% (3/10) are formerly homeless users, 20% (2/10) are homeless users, and 10% (1/10) are mainstream users (Table 4.6). As such, HN staff generate content that receives the highest number of comments, and are considered the most influential members in the network. The network diagram below (Figure 4.10) provides a visualization of the top ten influential members. These users are represented with green nodes.

Table 4.6. Top ten users based on out-degree centrality.

Rank	HN User Name	HN User Category	Out-Degree Centrality
1	Vancouver Outreach Team	HN staff	0.282
2	Fraggle	Formerly homeless	0.175
3	Janelle	HN staff	0.158
4	Blackbird	Activist/advocate	0.141
5	Jhock	Formerly homeless	0.129
6	Ben	Formerly homeless	0.124
7	Colin	HN staff	0.124
8	McBride	Homeless	0.124
9	mrmcbinner	Mainstream	0.118
10	Shadow	Homeless	0.107

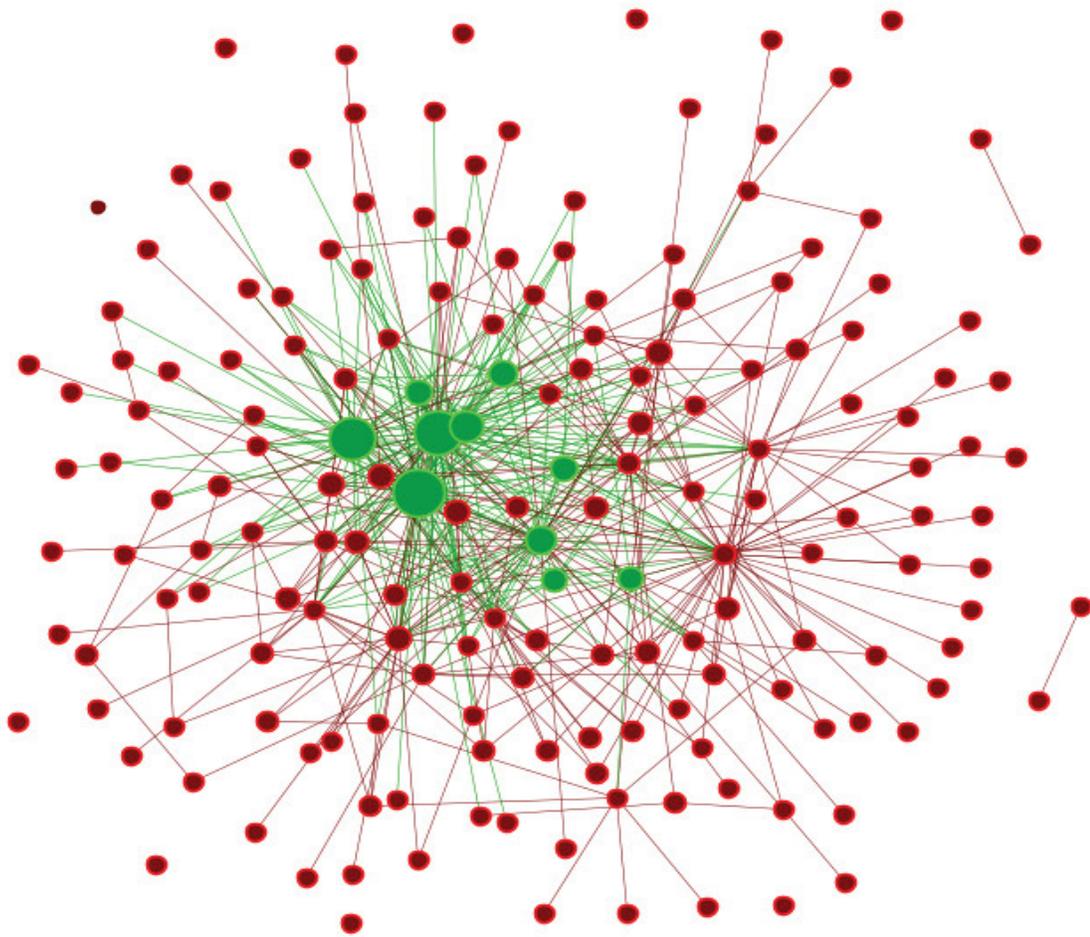


Figure 4.10. Network diagram of the top ten users based on out-degree centrality.

4.3.4 Influential Commenters based on In-Degree Centrality

In order to determine which users are prominent commenters within the network, I used the online tool ORA to measure the in-degree centrality of all users in the data sample. In-degree centrality is based upon an examination of users who seek direct ties to influential members (such as those with high out-degree centrality). These ties are achieved by posting comments on posts (Hanneman & Riddle, 1998, para 16). As such, these users are significant to the network because their behaviours form the basis of all communicative ties.

Results indicate that of the top ten commenters, 30% (3/10) are HN staff, 30% (3/10) are formerly homeless users, 20% (2/10) are homeless users, 10% (1/10) are activist/advocates, and 10% (1/10) are mainstream users (Table 4.7). As such, HN staff post the most comments and create the highest number of ties within the network. The network diagram below (Figure 4.11) provides a visualization of the top ten commenters. These users are represented with blue nodes.

Table 4.7. Top ten users based on in-degree centrality.

Rank	HN User Name	HN User Category	In Degree-Centrality
1	Jhock	Formerly homeless	0.271
2	Janelle	HN staff	0.254
3	Chris	HN staff	0.225
4	Pianoman	Homeless	0.124
5	Fraggle	Formerly homeless	0.096
6	Anya	HN staff	0.079
7	Brampre	Mainstream	0.067
8	Rose	Homeless	0.062
9	Waste	Formerly homeless	0.056
10	Brett	HN staff	0.056

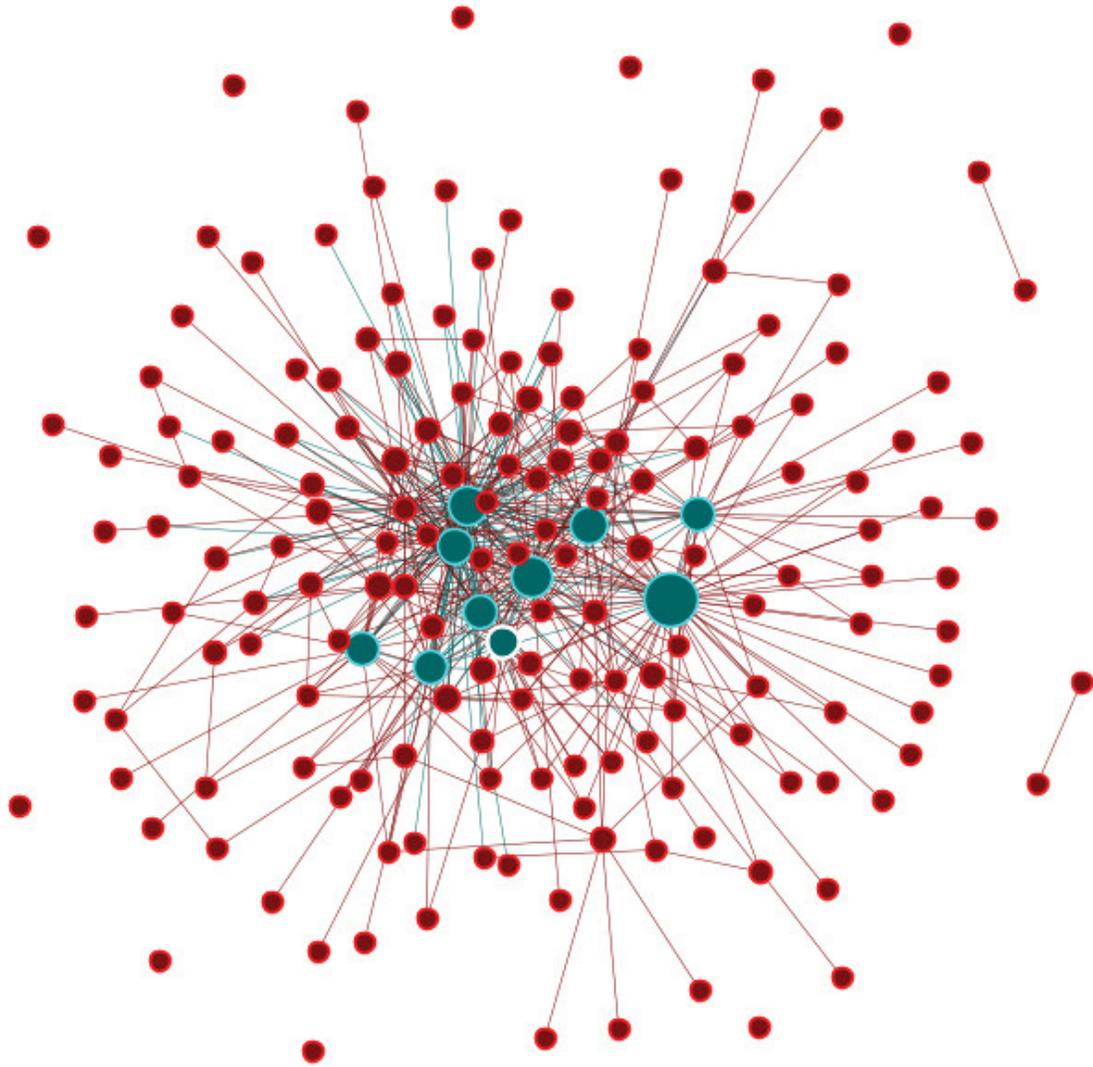


Figure 4.11. Network diagram of the top ten users based on in-degree centrality.

Based on the results, I determined that homeless users are well connected within the online community and successfully develop relationships with members of mainstream society. In addition, Homeless Nation Staff have the highest total degree centrality, out-degree centrality, and in-degree centrality. This means that they have the most connections with other users in the network, have access to the largest amount of information, and receive the highest number of comments on their posts. As such, they

are the most influential user group and create content that is deemed to be of value by the community as a whole.

Chapter 5 Discussion

All study results were considered from a variety of perspectives in order to generate a multifaceted account of how Homeless Nation is utilized by its user community. First, results were considered from a broad perspective in order to identify general trends. Then, findings were compared against the definitions and criteria of digital literacy, information seeking behaviours and online communities established in the literature review in order to assess if such behaviours were in fact evident. Finally, findings were considered within the context of the information management profession to determine what insights can be gathered in regards to the digital divide.

5.1 General Trends

5.1.1 Narrative Content vs. Administrative Content

Across the board, narrative content categories came out on top in terms of the overall number of posts, comments, and views (Figures 4.2, 4.3, 4.5, 4.9 and 4.15). This content is characterized by the imparting of opinions, thoughts and feelings. The results indicate that the user community gravitates towards information presented in an experiential context as opposed to purely factual content. Evidence from qualitative data indicate that narrative posts serve the dual function of providing basic information about a resource coupled with an account of what it is like to use the resource. As such, readers are provided with a set of expectations as well as examples of possible outcomes. This idea reflects findings by Chatman (1996), which state that the homeless require sources of information to be legitimized by “contextual others” and placed into systems of related ideas and expectations before it is accepted.

5.1.2 Peer Promotion Influences Online Behaviours

Based on study findings, the notion of the “contextual others,” as described above, not only applies to information, but to online environments as well. In a number of instances, qualitative data indicated that the promotion of video content or the blogging platform led to increased viewing rates and instances of content creation (chapter 4, section 4.1.4). In addition, members of the homeless community observe interactions or means of information dissemination before deciding making the decision to participate in the online community (chapter 4, section 4.1.1). Findings indicate that the user community is provided with a set of expectations and comfort level with the structure of the site by observing the online experiences of peers. Thus, it is not only information that requires legitimization prior to acceptance, but the online environments as well. These findings build upon the ideas of the significance of the “contextual other” in regards to information seeking behaviours, as presented by Chatman (1996).

5.1.3 The Discussion of Poverty and Homelessness

Previous studies on the behaviours of homeless individuals in OSM environments suggested that interactions were largely based around information seeking behaviours (Hersberger, 2003). However, results from this study indicated that interactions in Homeless Nation are largely based on the discussion of poverty and homelessness. For example, the top three content categories (imparting information, criticism and personal history), which account for 46% of posts in the data sample, discuss homelessness from a narrative standpoint. In some cases, posts are created specifically to discuss the implications of poverty (such as those frequently found in the criticism or personal

history categories), and in other cases, the conversation is steered to these issues through comments (such as those frequently found in the imparting information category). As such, the Homeless Nation community appears to use the site predominantly as a public forum to voice opinions and thoughts about the issue of homelessness in Canada.

5.1.4 Extrospective vs. Introspective Discussion

Results indicate that the most frequently utilized and viewed content categories (imparting information, criticism and personal history) contain posts that are extrospective in nature, while the least frequently utilized and viewed categories (seeking support/validation, memorial and seeking volunteers) contain posts that are introspective in nature. As the majority of site discussions center on poverty, this trend suggests that the users are looking outwards and tend to examine homelessness from a social rather than personal perspective. In many cases, discussions do not examine why specific individuals suffer from homelessness, but rather, why homelessness exists in Canada at all. These findings indicate that the behaviours observed on Homeless Nation are different than those reported in studies by Chatman (1996, 1999), Case (2007) and Merton (1972), in that the “I” against “everyone” mentality appears to be absent. Rather, the extrospective nature of discussion allows for communication and collaboration between all users despite social roles, in order to arrive at solutions.

5.1.5 Inclusive vs. Exclusive Structure

As the primary function of Homeless Nation is to discuss poverty and homelessness from a social perspective, opinions and thoughts from all user categories are represented in discussions. When examining the most frequently utilized and viewed

content categories (imparting information, criticism and personal history), discussion topics are often broad and allow for the expression of a wide variety of ideas. As such, they are inclusive as individuals in all user categories are provided with opportunities for participation. Thus, the site facilitates relationships between homeless users and mainstream society. Again, these findings differ from the results of previous studies by Bure (2006) and Merton (1972), as there is no evidence of a demonstrated distrust for those who have never experienced homelessness. Based on site behaviours, it does not appear that homeless users view themselves in opposition to mainstream society and relationships are not defined by social roles. Rather, the establishment of relationships and status within the community are defined by a general willingness to participate and contribute opinions to discussion.

In cases where content is exclusive in nature, as seen in discussions involving personal issues or memorials, posts do not attract a great deal of attention. The bottom three content categories (seeking support/validation, memorial and seeking volunteers) are characterized by exclusive posts, and only account for 5% of the total data sample. Due to a lack of wide community appeal, these posts do not invite a great deal of participation and thus appear to have limited relevance.

5.2 Information Seeking, Online Relationships, and Digital Literacy

This study set out to answer three research questions relating to whether or not there was the evidence of digital literacy, information seeking behaviours and the development of online relationships in the behaviours of the Homeless Nation user community. They are as follows:

- 1) What information seeking and/or dissemination behaviours do homeless individuals display when using the Homeless Nation website?
- 2) What relationships or ties within the online community are fostered by Homeless Nation?
- 3) What evidence is there to suggest whether or not the OSM environment of Homeless Nation develops or strengthens digital literacy skills in the homeless community?

Results were compared against the operational definitions established in chapter 2, and details of the analysis are discussed below.

5.2.1 Information Seeking Behaviours

In this study, information seeking behaviours were defined as the ability to recognize when information is required, as well as locate, evaluate and use such information (Bawden, 2008, p. 52). The observed activity on Homeless Nation indicates that most instances of information seeking behaviours are passive in nature. While posts received high numbers of views, particularly those that imparted information in a narrative context, content that posed direct questions accounted for less than 3% of the data sample. As such, observed behaviours do not suggest that users are actively seeking information on the Homeless Nation website.

The results also indicate that the dissemination of information pertaining to resources or services was not a primary function. In many cases, posts that mention services do so within the greater context of homelessness. As seen in the discussion of the Howe Street Shelter posts (chapter 4, section 4.2.3), services are mentioned with great

frequency when they are threatened by funding cuts, and discussions involve measures that can be taken to prevent closures. Thus, the dissemination of such information is not in response to a knowledge gap, but rather in response to events that affect the homeless community.

When I compared the results to the operational definition of information seeking behaviours (section 2.3), there was not sufficient evidence to state that information seeking exists on Homeless Nation. There are occurrences of passive information seeking behaviours, such as encounters with information (whether these are purposeful or accidental cannot be verified based on the current data), among 91% of site users classified as lurkers. However, the criteria relating to active information seeking behaviours are not evident. These include a general recognition that held knowledge is inadequate to satisfy specific goals, and a conscious effort to acquire information in response to a need or gap in knowledge (Case, 2007, p. 5). Based on the results, it cannot be stated that users display information seeking behaviours when using Homeless Nation.

5.2.2 Online Communities

For the purposes of this study, online communities were defined as social aggregations that emerge from the Internet when a group of people carry on public discussions over time, with sufficient human feeling, to form webs of personal relationships in cyberspace (Jones, 2006, para. 7). Results indicated that the online environment of Homeless Nation promotes the development of relationships across user categories (Figure 4.8). Specifically, there were many instances of relationships between homeless and mainstream users between the years 2008-2009. As such, communication

was not confined to established social roles but rather, was based on the ability or willingness to participate in discussions by commenting on posts.

An analysis of the community structure indicated that HN staff are the most influential users (Figures 4.9, 4.10, 4.11). Overall, they established the most relationships with site users, demonstrated the ability to exchange ideas, and made others aware of their views (Carley, 2011). As suggested in previous studies by Chatman (1996) and Hersberger (2003), the presence of such individuals, often called “opinion leaders,” is common within homeless communities. These individuals are deemed as trusted members of the community who provide valid information. As such, the structure of the Homeless Nation community reflects previous research findings.

When comparing these results to the operational definition of an online community (section 2.7), it was determined that Homeless Nation does indeed provide an online framework that fosters the development of relationships. Specifically, the site meets the four criteria that define strong online communities: a minimum level of interactivity; a variety of communicators; a minimum level of sustained membership; and virtual common-public-space where a significant portion of interaction occurs (Jones, 2006, para. 17). Thus, it can be stated that Homeless Nation provides an online community that encourages the development of relationships.

5.2.3 Digital Literacy

For the purposes of this study, digital literacy was defined as the ability to disseminate knowledge, seek information and interact within an online community (Martin, 2005, p. 1). Results indicated that users disseminate content in the form of narrative and administrative posts (Figure 4.2), and most relate to the issues of poverty

and homelessness. Such posts generate discussion through the use of comments, which lead to continued opportunities for information dissemination. As established in section 5.2.1, there is not sufficient evidence to indicate that information seeking behaviours are evident. As established in section 5.2.2, it is clear that Homeless Nation has a strong online community that promotes the development of relationships between users.

When comparing results to the operational definition of digital literacy (section 2.2), the one criterion of digital literacy that is not apparent in the behaviours of the user group is information seeking. However, the remaining criteria were evident. These include the use of technologies for information dissemination, interaction within social networks, and adaptation to existing communication frameworks of online platforms (Hersberger, 2005). However, as observable information seeking is largely absent, it cannot be stated that Homeless Nation encompasses all characteristics of digital literacy.

5.3 The Goals of Homeless Nation

Homeless Nation founder Daniel Cross created the site for the purpose of providing the homeless with an online space to share narratives and raise social awareness of issues related to poverty (Homeless Nation, 2009, para. 1). In order to accomplish this mission, he developed seven goals for the website (section 1.6). After results had been compiled, I compared them against these objectives in order to determine if actual site usage trends align with the intended use outlined by Cross.

I discovered that goals pertaining to the development of relationships within the online community do align with observed online behaviours (section 5.2.2). Specifically, these goals include a) the development of virtual street communities, b) the discussion about social issues surrounding homelessness, c) the creation of dialogue between the

homeless and mainstream society, d) the dissolution of stereotypes and e) the establishment of a collective voice for the homeless population (Homeless Nation, 2009). However, online behaviours did not align with goals relating to information seeking behaviours, as there was not sufficient evidence to state that such activities occur on the site (section 5.2.1). These goals include a) creating a forum where the homeless can find shelter, food, health care and legal assistance and b) uniting resources aimed at serving the homeless.

Currently, resources are largely presented on the site in the form of administrative content. However, study results indicate that the user community gravitates towards content that is narrative in nature. In order to achieve the goals of uniting and promoting resources, presenting information in a narrative context could increase its relevance within the community.

5.4 A Discussion of Digital Divide

One of the contributing factors to the digital divide is the social exclusion that individuals face due to the social roles they occupy (Bure, 2006, para. 4). The study results indicate that many of the strengths of Homeless Nation serve to combat such issues. For example, as stated in section 5.1, discussions on Homeless Nation are inclusive, extrospective, and based on a social perspective. As such, individuals from all user groups share ideas and develop relationships based around the common interest of examining the problem of homelessness in Canada. To further support this point, the structure of the online community indicates that relationships are not formed according to social roles, but are based on the degree to which individuals participate and engage in

community discussions. Thus, the structure of the Homeless Nation provides insight into ways that the homeless and mainstream society can engage in other online environments in order to combat to solidification of social roles that perpetuate the digital divide.

While the user community of Homeless Nation does represent a wide variety of social roles, I found that there was no representation from the information management community. This is unfortunate, as information professionals have many characteristics of “opinion leaders” (Chatman, 1996). That is, they are in the position to serve as knowledge hubs within communities by offering valid information to the homeless, as well as establishing collaborative relationships with community organizations to strengthen outreach services. While many librarians are heavily involved in community development, such as Annette de Faveri, a librarian at the Vancouver Public Library and a leader on the Working Together Project (see section 2.5), their outreach capacity and leadership roles could be further expanded by having a strong online presence in communities such as Homeless Nation.

5.5 Conclusion

As previous studies have discovered, homeless individuals are often subjected to stereotypes and confined to social roles that lead to the development of assumptive relationships with mainstream society. However, the results of this study demonstrate that it is possible to establish online environments that promote inclusive discussions regarding the true needs and values of the homeless community. As social media tools continue to evolve and influence communication trends in society, it will be interesting to

discover if projects such as Homeless Nation foster relationships between the homeless and mainstream society, and whether this influences the state of the digital divide.

Chapter 6 Conclusion

The goal of this study was observe how Homeless Nation is utilized by its user community. Particular focus was given to the questions of if and how the site serves as an online tool that promotes digital literacy skills, information seeking behaviours and the development of relationships in online communities. To examine this issue, I collected a data sample representing a sub-group of the site using stratified sampling methods, and conducted analysis using the basic tenets of content analysis and social network analysis. The findings were compared against the operational definitions of digital literacy, information seeking behaviours and online communities established in chapter 2, in order to determine if there was evidence of these behaviours within the user community. Also, the comparison of findings against previous research aided in the analysis of the trends observed in Homeless Nation, and I discovered that some notable behaviours recorded in this study differ from those observed in the past.

Overall, the strength of Homeless Nation lies in its ability to establish an online community that promotes relationships across user categories. Homeless and mainstream individuals communicate with one another on a frequent basis, particularly in regards to discussing the implications of poverty. Also, there was no evidence to suggest that marginalization within the online community occurs due to social roles. Instead, it results from a lack of participation, particularly in terms of commenting on posts. After comparing these behaviours to the original goals of the Homeless Nation website (section 1.6), I found that they do align with intended site usage. Specifically, they pertain to a) the development of virtual street communities, b) the discussion about social issues surrounding homelessness, c) the creation of dialogue between the homeless and

mainstream society, d) the dissolution of stereotypes and e) the establishment of a collective voice for the homeless population.

The promotion of information seeking behaviours was the greatest weakness of Homeless Nation. There was not a great deal of evidence to suggest that such behaviours are prevalent, and when they occur, are often passive in nature. There were few instances of active efforts to gain information about resources or locate services. In addition, members of the user community rarely acknowledged information gaps. When comparing these behaviours to the original goals of the Homeless Nation website (section 1.6), I found that they do not align with intended site usage. Specifically, they do not support the goals of a) creating a forum where the homeless can find shelter, food, health care and legal assistance and b) uniting resources aimed at serving the homeless.

In regards to digital literacy, the online environment of Homeless Nation does support a number of key elements including the dissemination of information using the Internet, interaction within an online community and the ability to adapt to the framework of an online platform. However, as discussed above, observed usage trends do not indicate the presence of active information seeking behaviours. As such, it cannot be said that the site works to strengthen all components of digital literacy.

The general trends discovered through this study suggest that the primary purpose of Homeless Nation is to facilitate discussions surrounding the topics of poverty and homelessness. These conversations take place from a broad social perspective and are inclusive in nature. As such, individuals representing all social roles are free to contribute opinions and thoughts.

The results also indicated that users gravitate towards narrative posts, which refers to content that provides accounts of events, opinions, thoughts or feelings. Examinations of the content also indicated that these posts provide experiential information. As such, readers are provided with information about a service as well a set of expectations regarding service use.

Finally, I observed that promotion by peers influences behaviours within the online Homeless Nation community. For instance, video blogs that were promoted by the creator received a higher than average number of views. The results also indicated that some homeless individuals ultimately decide to participate online due to encouragement from peers. Based on the nature of the data sample, it was not possible to examine how all active users of Homeless Nation were recruited to the site. In the future, it would be interesting to interview site participants to discover if they joined the site due to peer influence or if other factors were involved.

6.1 Implications of Findings

One of the underlying strengths of Homeless Nation is that it provides the homeless community with cognitive authority over their experiences. As such, the homeless are free to express their own opinions and needs in an environment that is relatively free of stereotypes. The observation of social media sites such as Homeless Nation is of great value to information professionals, as a great deal can be learned about the true needs and values of the homeless community. In addition, the results indicated that information professionals have the characteristics of “opinion leaders,” which allows them to serve as information hubs for members of the homeless community. Their

involvement in online initiatives such as Homeless Nation could expand their outreach and leadership roles within marginalized communities. These findings can be applied to a variety of areas including program development, community outreach, reference services and the development of online initiatives.

Literature regarding the digital divide states that an emphasis on social roles increases the gap between the information rich and the information poor. When examining the structure of the online Homeless Nation community, results indicated that an emphasis on such roles was removed due in large part to an inclusive social perspective. Users from all walks of life found common ground through broad discussions of the social implications of poverty. The development of social media initiatives that encourage dialogue between the homeless community and mainstream society may be a preventative measure against the solidification of social roles that currently contributes to the digital divide.

6.2 Future Areas of Study

While the results of this study provided insight into how social media tools are used by member of the Homeless Nation website, there is still a great deal to learn. Based on the research design, this study relied on the analysis of quantitative and qualitative data harvested from the site. As such, it was not always possible to determine the motivations for participation and communication. In future studies, a research design that involved interviews or surveys of site participants would provide greater insight into their reasons for interacting in online environments. Also, as mentioned in section 3.6, the data sample harvested from the Vancouver forum was influenced by the local events and

community development projects leading up to the Olympic games. In the future, a study of Homeless Nation that included analysis of other site forums would indicate if similar patterns of use are evident across the entire user population.

To further examine the relationship between social media and the digital divide, future studies could test the theory that online environments promote communication without emphasis on social roles. For instance, the observation of other popular OSM tools could allow researchers to determine if similar trends are evident in interactions. As mentioned in the literature review (see section 2.6), the homeless and advocates for the homeless make extensive use of YouTube to discuss social issues related to poverty. It would be interesting to examine if comments posted on these videos represent a variety of social roles and interactions between different social groups. These findings would contribute to the ongoing discussion of the digital divide, and provide insight into whether social media tools are indeed serving to prevent the solidification of social roles.

In addition, it is currently assumed that many of the homeless who make use of OSM tools have some level of technical skills. However, it is not currently known if such skill sets are learned by navigating OSM environments or if they existed prior to online participation. Future studies could examine learning environments that combine access to technologies such as the Internet with technical training. Results would provide insight into the impact that access barriers and comfort levels with OSM environments have on digital literacy levels and information seeking behaviours, as well as if and how such skills are developed by navigating online environments. This information could be used to develop a set of best practices that facilitate online communities for homeless Canadians.

The results of this study indicated that communicative relationships are not based on social roles, but rather on the willingness to participate in the online community. In the future, it would be valuable to examine whether or not comfort levels regarding participation is an extension of face-to-face networks that exist in a physical community. For example, is participation encouraged through member-to-member relationships and recruitment, or are other factors such as the ability to remain anonymity or craft an online identity equally significant? Such findings would provide insight into the factors that motivate the homeless to join OSM communities and would aid in the future development of online environments targeted towards the street community.

The development of skills related to digital literacy, information seeking and online communication take time. In the future, it would be interesting to follow a selected population of homeless users over the course of several years and observe how online behaviours or communication patterns change with skill level. These findings would also add to the body of knowledge regarding the digital divide, as they could provide further insight into the online integration or segregation of marginalized individuals who make use of social media tools.

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Appendix A: Example of Data Collection Spreadsheet

A	B	C	D	E	F	G	H	I
ID Number	Blog Title	Blog Category	Creator Name	Creator Category	Date	Views	Com Name of Commentor(s)	Blog Post
2	Happy new year	Encouragement	mrmcbinner	Volunteer	31-Dec-08	562	2	Happy new year
3	Weather update	Imparting information (misc)	brampre	Volunteer	27-Dec-08	926	0	this is ben here r
4	Winter in Kitisilano (click to see Flickr comments)	Overt agenda (society)	Blackbird	Activist/advocate	27-Dec-08	833	7	brampre, Pianoman, rose
5	Christmas with the family	Personal history	gongshovgizmo	Formerly homeless	27-Dec-08	1166	1	Pianoman
6	The warm project	Imparting information (event outcome)	Eliza McCullough	Outreach worker	24-Dec-08	722	0	The 1st WARM sh
7	Happy holidays	Encouragement	Janelle	HN staff/outreach	24-Dec-08	487	0	Wishing everyone
8	Public forum on homelessness	Announcement (event)	Janelle	HN staff/outreach	23-Dec-08	1039	1	jhock
9	Emergency shelter for Vancouver	Imparting information (service/shelter)	rose	Homeless	21-Dec-08	1266	2	Janelle
10	New shelter that allows dogs and shopping carts	Imparting information (service/shelter)	Janelle	HN staff/outreach	21-Dec-08	715	5	nova, brett, Roach
11	A lil jenn update	Personal history	Lil_Mama	Formerly homeless	19-Dec-08	977	2	jhock, Waste
12	No pet policy equals risk of freezing	Criticism (society)	Janelle	HN staff/outreach	19-Dec-08	537	3	Lil_Mama, avril57, Roach
13	Half feather	Memorial	half_feather	Activist/advocate	18-Dec-08	595	1	jhock
14	Snow	Imparting information (misc)	brampre	Volunteer	17-Dec-08	802	0	This is ben report
15	Hello everyone, if you're a hippy check this out (T	Imparting information (technical)	Bogart	Formerly homeless	17-Dec-08	790	3	craig
16	Cost of war and all they talk about is this money	Criticism (society)	MissinglynxGypsyVirus	Homeless	17-Dec-08	282	0	U.S. costs of Iraq
17	You can kill the revolution but	Criticism (society)	MissinglynxGypsyVirus	Homeless	17-Dec-08	248	0	[Maynard]Living
18	Critics equal treason punishable by death	Criticism (society)	MissinglynxGypsyVirus	Homeless	17-Dec-08	296	0	By DAVID NOWAK
19	Really bad jokes please add	Seeking community approval/support	MissinglynxGypsyVirus	Homeless	15-Dec-08	271	0	(Stop thinking yo
20	VPS DTES ticket spree	Criticism (society)	Blackbird	Activist/advocate	15-Dec-08	891	0	Hastings Street Ed
21	Pickton files	Imparting information (misc)	jayson	Homeless	14-Dec-08	463	0	Crey laments lack
22	Contaminated cocaine warning (INFORMATION D)	Announcement (community alert)	Janelle	HN staff/outreach	13-Dec-08	2675	6	jhock, fragile, Pianoman
23	A doomed culture (INADVERTANT ASK FOR HELP	Seeking legitimation/validation	biblijames	Homeless	12-Dec-08	455	2	fraggle, jhock
24	Stay warm	Encouragement	koburn	HN staff/outreach	12-Dec-08	538	0	I have spent most
25	Fort Vancouver	Criticism (olympics)	punx	Homeless	12-Dec-08	1279	0	Hey Everyone, Hop
26	Free help in east vancouver (INFO DISSEMINATIO	Imparting information (service/shelter)	mrmcbinner	Volunteer	10-Dec-08	3633	1	im hating this cit
								FREE OR LOW CO

Appendix B: User Category Coding Manual

User Category Code	Definition	Example
Activist/advocate	Individuals who represent the homeless community through advocacy roles. They raise public awareness of issues related to poverty.	Freelance writers/photographers; documentary filmmakers
Formerly homeless	Individuals who have experienced homelessness on at least one occasion, but currently have a permanent residence.	
Homeless Nation (HN) staff	Individuals who are employed by or volunteer for Homeless Nation.	Vancouver outreach team; site administrator; forum moderator
Homeless	Individuals who are without permanent residence and make use of shelters, drop-in centers, etc.	
Mainstream	Individuals who are part of mainstream society and have an interest in homelessness.	Citizens of Vancouver; volunteers
Outreach worker	Individuals who are employed by agencies that provide services, resources, or assistance to the homeless.	Outreach workers; social workers; youth workers
Student	Individuals who study homelessness in academic programs.	High school student; thesis student; social work student
Unknown	There is not sufficient information to identify a social role.	

Appendix C: Content Category Coding Manual

Content Category Code	Definition	Example	Narrative	Administrative
Activism	Call for active participation in an event that pertains to homelessness			√
--demonstration	See activism	Demonstration; rally; march		√
--petition/letter campaign	See activism	Write a letter to the mayor; sign a petition		√
Announcement	Provides factual information relating to an event, service, etc.			√
--community alert	See announcement	Scams; tainted drugs		√
--event	See announcement	Press conference; city council meeting		√
--service/shelter	See announcement	Shelter hours; vaccination services		√
Article	Link or body of an article posted in the media that pertains to homelessness	News coverage regarding the closure of the Howe Street Shelter		√
Covert agenda	Post is written with a hidden agenda.	Attempt to raise pity or concern.	√	
Criticism	Opinions or criticisms			

	regarding poverty, services, etc.		√	
--federal government	See criticism	Criticism of federal policies; Opinions of candidates	√	
--miscellaneous	See criticism	Criticism of a specific person within the community	--	--
--municipal government	See criticism	Opinions on municipal policies	√	
--Olympics	See criticism	Criticism of funding cuts to services due to Olympic spending	√	
--society	See criticism	Criticisms of the way homeless individuals are treated by mainstream society	√	
Imparting information	Provides the community with an interpretation of an event, experience using a service, etc.		√	
--community member	See imparting information	Pregnancy or birth announcement	√	
--event outcome	See imparting information	Account of attendance at a	√	

		city council meeting		
- government/legislation	See imparting information	Account of a voting experience	√	
--miscellaneous	See imparting information	Discussion of the environment	--	--
--service/shelter	See imparting information	Experience staying at a specific hostel	√	
Memorial	Announcement of the death of a community member	Tributes; Eulogies	√	
Miscellaneous	Content that does not fit into a defined category	Link to a TV show	--	--
Overt agenda	Blatantly attempts to persuade the attitudes or opinions of community members	Argument to vote for a specific federal candidate or political party	√	
Personal history	Narrative account of experiences with homelessness. Often provides details regarding life then and now.	Story about how an individual became homeless due to unemployment.	√	
Promotion	Promotion of a personal project.	Link to personal blog or website	√	
Seeking information	Questions posted to the			

	community for the purpose of locating information about a service, resource, etc.		√
--direct	See seeking information	Can you tell me the name of a decent hostel in Vancouver?	√
--indirect	See seeking information	“Beating around the bush” for information about loans, free courses, etc.	√
Seeking support/validation	Personal information is told in the hopes of gaining encouragement, advice, validation, etc.	Stories about family problems or recent breakups.	√
Seeking volunteers	Requests for volunteers to run events	Requests for volunteers or equipment	√
Social support	Post meant to offer encouragement to the entire community.	Sharing an inspirational poem; telling the community not to lose hope.	√

Appendix D: User Category Counts

User Category	No. of Users	% of Total Users
Activist/advocate	23	13%
Formerly homeless	28	16%
Homeless Nation (HN) staff	11	6%
Homeless	62	35%
Mainstream	16	9%
Outreach worker	11	6%
Student	8	5%
Unknown	18	10%
Total	177	100%

Appendix E: Content Category Counts

Content Categories	No. of posts	No. of comments	No. of views
Activism	60	37	38099
(demonstration)	38	14	21924
(miscellaneous)	9	14	8379
(petition/letter campaign)	13	9	7796
Announcement	67	50	47397
(art/theater/film)	12	8	9743
(community alert)	5	9	6550
(event)	36	15	20038
(service/shelter)	9	10	6717
(training/education)	5	8	4349
Article	53	84	40649
Article (miscellaneous)	13	20	10518
Article (Olympics)	8	9	6843
Article (poverty/homelessness)	10	15	7438
Article (service/shelter)	22	40	15850
Covert agenda	24	60	19343
Criticism	106	281	93622
(federal government)	14	41	9660
(miscellaneous)	11	18	8269
(municipal government)	20	33	15489
(Olympics)	22	34	17896
(provincial government)	6	8	3338
(society)	33	147	38970
Imparting information	143	198	117399
(community member)	14	29	11446
(event outcome)	46	38	27415
(government/legislation)	12	11	11360
(miscellaneous)	33	58	28273
(service/shelter)	38	61	38905
Memorial	17	28	14154
Miscellaneous	38	47	32175
Overt agenda	21	41	16304
Personal history	69	141	63767

Promotion	18	15	17310
Seeking information	29	112	30058
(direct)	24	95	24534
(indirect)	5	17	5524
Seeking support/validation	17	52	16471
Seeking volunteers	10	11	7246
Social support	19	32	15005
Total posts	691	1189	568,999