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Man Shall Not Live By Bread, At All: A Netnography of the Key Characteristics and Purposes of an Online Gluten-Free Community

Emily Anne Bean

Brigham Young University - Provo

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Man Shall Not Live By Bread, At All: A Netnography of the Key Characteristics
and Purposes of an Online Gluten-Free Community

Emily A. Bean

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Arts

Sherry Lynn Baker, Chair
Loy Clark Callahan
Christopher Cutri

Department of Communications

Brigham Young University

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ABSTRACT

Man Shall Not Live By Bread, At All: A Netnography of the Key Characteristics and Purposes of an Online Gluten-Free Community

Emily A. Bean
Department of Communications, BYU
Master of Arts

This study is a netnography of an online gluten-free community through the scope of the Facebook group “Gluten Free.” The objective of this qualitative inquiry is to investigate the key characteristics of this online gluten-free community and gain a deeper understanding of member purposes for participation. Employing the method of netnography allows for an unobtrusive exploration of the community by discreetly utilizing anthropological techniques in an online setting. Despite growing awareness, no academic research has yet been conducted on the social aspects of the online gluten-free community. The thematic findings that emerged from this study were two-fold. First, this investigation revealed three key characteristic themes in the content of community posts: suspiciousness and distrust, defensiveness and frustration, and passion and determination. Second, this analysis discovered three purposive themes for member participation: validation, friendship, and education. The findings of this study render a thick description of the unique culture of the online gluten-free community, sharpen the academic understanding of online communities, and strengthen the valuable method of netnography.

Keywords: gluten-free, netnography, online communities

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Chapter 1: Introduction

Scholars may be tempted to see communication as a series of letters and words that combine in the exchange of information. By focusing solely on the exchange of information, the cultural elements of communication could be left unnoticed. Anthropologists have recognized the benefits of studying the cultural elements of offline communities and now it is the task of communication scholars to study the cultural aspects of online communities. The task has already been accomplished for several online communities, but the online gluten-free community has yet to be studied. It is the objective of this thesis to analyze one online gluten-free community to uncover its key characteristics and purposes.

Significance

This study will expand on the literature of online communities by examining significant phenomena that occur within the communication of virtual communities. Through a netnography of a gluten-free Facebook group, this study will also contribute to the void in literature pertaining to the online gluten-free community. There have been several studies conducted on online food communities (Cairns, Johnston, & Baumann, 2010; Lynch, 2010; Gundersen, 2012) and significant scientific literature in relation to the gluten-free diet (Fabiani et al., 2000; Holmes, Prior & Lane, 1989; Holmes et al., 1976), but none relating to the online social aspect of the gluten-free community. Lastly, this study will contribute to the method of netnography by replicating elements of previous studies, thereby reestablishing netnography as a suitable qualitative research method for communication studies.

Chapter 2: Literature Review

Communication as Culture

James Carey (1989, p. 9) is famous for his perspective of “communication as culture.” He posited that communication creates culture and it is the essential piece in the formulation of that culture. Carey (1989, p.19) held that “communication is a symbolic process whereby reality is produced, maintained, repaired, and transformed.” Communication shapes and creates our reality as we create communication and receive communication. The phenomena of online communities would not be understood without reference to the communication processes that organized them (Carey, 2002).

Carey (1989) explained that there are two conceptions of communication that exist—transmission and ritual—and industrial and mercantilist culture (which includes American) often favors one or the other.

Transmission view. The transmission view is the most widely accepted and understood view of communication. Its definition utilizes verbs such as “sending” or “imparting” as if to connote transportation of messages (Carey, 1989, p. 15). Historically communication was carried from one location to another either by train, by foot, or by technology. Nations have sought to increase the speed of transmitting information for religious and political gains (Carey, 1989). The movement of information used to be an identical process to that of the movement of goods. Over time, the speed of transporting information has increased significantly and the physical movement of information is rarely visible in today’s modern world (Carey, 1989). The old methods of transmitting information have faded, but we have retained the transmission view of defining communication. Communication is now popularly known for transmission, or “a process and a technology” capable of spreading, transmitting and disseminating “knowledge,

ideas, and information farther and faster” (Carey, 1989, p. 17). This view of communication presents a narrow focus on communication and limits it to the basics of sending and receiving information.

Ritual view. The ritual view of communications, though lesser known in our culture, is actually the older of the two views. The descriptive terms linked to the ritual view are nouns such as “participation” and “association” (Carey, 1989, p. 18). Instead of the focus being on transmission, the focus of this view is on sharing. The key to the ritual view is that of “community,” commonality, and the “representation of shared beliefs” (p. 18). This view looks at communication to see what it has built—the cultural world that the society has created through that communication. Communication is the “container for human action” (p. 19) and a society maintains its rich culture through the continuation of the social process. The ritual view does not exclude that of the transmission view. It acknowledges the giving and receiving of information, but highlights that the purpose is not acquiring information, but in creating and maintaining a unique culture.

This theory of the ritualistic view of communication must be understood when deciphering the contents of this thesis. This analysis will be conducted through the lens of a ritualistic view of communications. To truly understand a culture it is essential to *see* the communication patterns that create a meaningful culture. Contrary to previous studies (Bender, Jimenez-Marroquin, & Jadad, 2011; Woolley, Limperos & Oliver, 2010), this analysis will not be focused on numerical counts of word usage, but rather how the online communications in the gluten-free Facebook group combine and interact to form a unique culture.

Uses and Gratifications

Previous studies of online communities have relied heavily on the theory of uses and gratifications as a framework for their research (Bender, Jimenez-Marroquin, & Jadad, 2011; Park, Kee, & Valenzuela, 2009; Raacke & Bonds-Raacke, 2008). Uses and gratifications theory is concerned with the purposes for and benefits of media use by individuals. The early stages of the theory focused on the gratifications, which are the elements of media that attract and hold the audience's attention. This focus then progressed to studying the social and psychological needs fulfilled by the content (Cantril, 1942). In a time period focused on the effects of persuasion and campaigns (Katz, 1959) this theory was developed to answer the question: Why do individuals use the media and for what reason?

McQuail (1984, p. 185) stated that uses and gratifications theory “can provide a powerful framework for looking at media in a wider social and cultural context.” As a qualitative analysis of a cultural community, this thesis utilizes uses and gratifications theory to provide a “powerful framework” for analyzing the social and cultural components of the online gluten-free community.

Assumptions. Katz, Blumler and Gurevitch (1973) identified several key assumptions to understanding the components of the uses and gratifications theory. The theory assumes that the audience is active and that media use is goal-oriented, meaning that the audience is aware of its selection purposes. The word “active” is key in the explanation of uses and gratifications theory because this theory also assumes that the audience members are active in linking their gratification needs to the specific medium. This means that the audience members are aware of their media consumption choices to the level of being capable of self-reporting in an analysis. Since the audience members are actively selecting their media choices, this theory assumes that

the media compete with resources that would curb the audience members' needs. This acknowledges that mass media are a fraction of the sources available to audience members to fulfill their human needs (Katz, Blumler, & Gurevitch, 1973).

Needs. The description of uses and gratifications theory specifies that the media gratify the audience member's needs. The most famous categorization is Maslow's Hierarchy of Needs: self-actualization, esteem, belongingness and love, safety, and physiological (Poston, 2009). Katz (1973) further explains these needs in several different categories: entertainment, education, identification, social interaction, and escapism. McQuail, Blumer, and Brown (1972) have specified a different set of needs: diversion, personal relationships, personal identification, and surveillance. Regardless of the categories, these needs are gratified by media usage and some media will be utilized more often than others (Katz & Foulkes, 1962). For example, an individual may watch the History channel to fulfill an educational need, or another individual may turn on the radio for entertainment while washing the dishes. The audience member can actively recognize his or her need and apply the suitable media to satisfy that need.

Criticisms. Early uses and gratifications theory research has been criticized for certain limitations within the original theory. The research relied heavily on self-reporting through surveys, which left the research vulnerable to internal validity errors such as evaluation apprehension or the individual's ability to correctly recall personal media usage (Katz, 1987). The method of surveying has also been criticized for reliability and the researcher effect. It's the age-old question from Heisenberg's uncertainty principle (Busch, Heinonen, & Lahti, 2007): Does the act of the researcher asking questions impact the individual's response? These criticisms have questioned the source of data used in the development of the theory and question its reliability as a mass media theory.

New media. With modern technology constantly developing new mediums for media usage—smart phones, tablets, laptops—research cannot keep pace with the effects of such devices. Some scholars question if these new communication media are satisfying the same needs as theorized for traditional communication media (Williams, Phillips, & Lum, 1985). For example, the emotional benefit from watching a sentimental film may shy in comparison to face-to-face video chatting with a loved one. Also the speed of communications is advancing and individuals are often interacting with multiple communication media at one time (Ruggiero, 2000). An individual could be watching a television show while skimming through social media. This makes it difficult for researchers to decode the gratifications derived from such communication experiences (Lin, 1996).

Despite these newer media technologies, the uses and gratifications theory can still be utilized as a guiding theoretical framework. As recognized earlier, scholars have coined different lists of needs they have deemed most appropriate. The principle needs remain recognized as the most widely accepted, but the application of those needs may be tweaked depending on the medium being studied. In this study of the online gluten-free community, the traditionally defined needs will be used as a starting framework with flexibility to recognize other needs that may be unique to the community under study. This will allow academic rigor coupled with a wider scope for new cultural discoveries.

Online Reciprocity

The third element of the theoretical framework of this analysis, in addition to James Carey's theory of communication as culture and uses and gratifications theory, is online reciprocity. The norm of online reciprocity maintains online interactions and is the key to the interactive capacity of virtual communities (Chan & Li, 2008). Reciprocity is "a pattern of

behavior where people respond to friendly or hostile actions with similar actions even if no material gains are expected” (Alavi, Ahuja, & Medury, 2010, p. 87). Positive online reciprocity among virtual communities is thought to derive from a shared knowledge and enthusiasm for the community’s purpose (Kozinets, 1999). Community members have a reason for participation and positive online reciprocity helps circulate new information among all community members.

A more extensive version of online reciprocity is that of self-disclosure reciprocity. When community members discover their unique similarities in opinion, problems, or interests, they feel a greater sense of trust leading them to reveal more personal information. The longer they participate in the community, the more trust they will feel, leading them to disclose more and more to other community members (Alavi, Ahuja, & Medury, 2010). This form of reciprocity may be especially prevalent in a community such as the online gluten-free community where numerous community members share a newly diagnosed disease.

Online Communities vs. Social Network Online Communities

Definition of online communities. An important first step in analyzing an online community is to clarify the term “online community.” The scientific community has had difficulty agreeing on a uniform definition of “online community.” The term is defined differently among different studies (Preece, 2001). Rheingold (1993, p. 146) has developed the most widely accepted definition that states that online communities are “a social aggregation of people carrying out public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace.” He expanded on this definition to explain that online communities are merely the occurrence of continual virtual interaction, created solely when “people bump into each other often enough” (Rheingold, 1996, p. 1) This definition lacks

participant awareness and discredits the formation of online communities by implying it to be an unconscious act.

More recent scholars have defined the term “online community” with descriptions suggesting purposeful involvement by the participant. Peerce (2001) defined “online community” as a virtual space where people gather to give information, to learn, to gain support, or build relationships. Bagozzi and Dholakia (2002) strengthen the idea of active community members by defining “online community” as a virtual social space where content is produced by the participants through continual communication processes. Lastly, Preece and Maloney-Krichmar (2003) defined “online community” as a group of individuals with shared interests with ongoing connection and interaction with each other over time. These definitions support the concept of awareness in online participation and recognize conscious acts of communication as the substance for an online community. This thesis adopts definitions of “online community” as a purposeful act by active, goal-seeking participants.

Characteristics of online communities. Online communities are products of exchanged information. The first source of online communities stemmed from online collaborative research communities. Originally scientists used the Internet to exchange data, discuss research, and share messages (Armstrong & Hagel, 2000). This has changed throughout the years as newer communities have developed. Armstrong and Hagel (2000, p. 85) have defined four different types of online communities: “Communities of Transaction,” which provide information pertaining to the buying and selling of goods; “Communities of Interest,” which revolve around specific topic areas of interest; “Communities of Fantasy,” which allow participants to fabricate fictional stories, environments, and personalities of fantasy; and “Communities of Relationship,” which consist of participants who share (often anonymous) intense personal narratives of their

personal experiences. This thesis analyzes the gluten-free online community, which patterns most closely with the category of “Community of Interest.” This deduction is based on Blanchard and Horan’s (1998) definition explaining that communities of interest are geographically dispersed and that their interactions are limited solely to the topic of interest.

Each online community contains unique characteristics, but there are common themes among all communities of interest. Ganley and Lampe (2009) found that although online communities lack definite structure, this allowed flexibility among the participants, contributing to stronger relationship ties. Muniz and O’Guinn (2001) expanded on the characteristics of online communities more extensively by recognizing three common themes among virtual communities: consciousness of kind, rituals and traditions, and the sense of moral responsibility (Flavian & Guinaliu, 2005). Consciousness of kind is the common interest that binds each participant together in the community, such as not being able to consume gluten. Rituals and traditions are behavioral patterns within the community, which help reinforce the shared values such as posting new health articles pertaining to the gluten-free diet. Lastly, a community that contains a sense of moral responsibility will have better odds at group sustainability. By generating a moral responsibility to perpetuate the common theme, the group members are more easily integrated and retained within the community. For example, inasmuch as 83 percent of people with celiac disease are undiagnosed or misdiagnosed with a different disease (“Celiac disease facts & figures,” 2011), many members of the gluten-free community feel a moral responsibility to spread awareness about the gluten-free lifestyle. Although researchers have found common trends among online communities, the specific characteristics of the online gluten-free community must be studied further through this analysis.

Benefits. This thesis will analyze the possible benefits of participating in the online gluten-free community, but researchers have already specified possible reasons for participants to join online communities in general. Bender, Jimenez-Marroquin, and Jadad (2011) stated that, “online communities present a convenient means to exchange information and support with people in similar circumstances” (para. 6). Preece (2005) also agreed that one of the main benefits to online communities is to acquire information and build relationships. Armstrong and Hagel (1997) developed four main reasons for participating in an online community, two of which were to share information and to form relationships, with the other two being to live out fantasies and for economic benefit. The online gluten-free community is most consistent with the first two of these reasons.

Several studies have also noticed benefits concerning online health communities. Seeing as a majority of gluten-free community members adopt the gluten-free lifestyle out of medical necessity, the findings of this thesis may have similarities to that of online health communities. Scholars have found that people turn to online communication due to the empathetic nature of discussing one’s health problems with those who have similar problems (Maloney-Krichmar & Preece, 2002). Similarly, Zimmerman (1987) found that the online environment allowed participants to more easily express their feelings and emotions. Most likely because encouragement, emotional support, empathy, and understanding are the most commonly found type of social support given within online communities (Brennan & Fink, 1997).

Definition of social network online communities. The formation of online communities can be seen across varying forms for online communication, including bulletin boards or forums, chat rooms, play spaces, virtual worlds, lists, weblogs, and social networks (Kozinets, 2010). Members of the same online community can be present in multiple forms of the online

community. For example, a gluten-free food blogger may also participate in an online forum discussing gluten-free recipes. This study will be analyzing the gluten-free online community through the form of the social network Facebook.

Social networks. Ellison (2007) has defined social network sites as any web-based service that meets the following criteria: It allows participants to create a public or semi-public profile within the system; it allows users to construct a list of shared connections; and it allows participants to view and navigate their list of connections with those made by others within the network.

Social networking sites such as Facebook, Instagram, Twitter, and LinkedIn boast of millions of users who utilize the sites to maintain relationships, find experts, or participate in commercial transactions (Huberman, Romero, & Wu, 2008). Facebook has become the clear dominant leader among social networking sites as the top visited social networking site in the world (“Top Sites,” 1996). Founded in 2004, Facebook boasts of 727 million daily active users as of September 2013 and 1.19 billion monthly active users (“Key Facts,” 2013). As a leader among social networking sites, Facebook has become the ideal social networking site for online communities to flock to

Facebook groups. One of the many communications tools Facebook has to offer is Facebook groups. Created in October of 2010, Facebook groups allow users another method of communication (Arthur, 2010). Facebook groups can be either public or private depending on the creator’s settings. A public group is similar to an interest group, whereas a private group is a private space where users can share information with different groups of people—coworkers, family, and classmates. According to Gordon and Stephens (2007) Facebook groups are a popular platform that allow discussion forums and threads based on common interest and

activities. Some groups are created for private purposes, while others are termed “open” groups, which are public groups that allow anyone with a Facebook account to join (“Groups,” 2014). With social media being increasingly used for health purposes (Bender, Jimenez-Marroquin, & Jadad, 2001), Facebook groups are an ideal platform to study the online gluten-free community.

Benefits. As with online communities, social network online communities have suggested benefits that attract community members to participate. Researchers have recognized a pattern of reinforcing social contacts and staying engaged within a community (Park, Kee, & Valenzuela, 2009; Kavanaugh, Reese, Carroll & Rosson, 2005). Raacke (2008) has highlighted the flexibility in communication styles and ease of gathering people from around the globe to one communal location. Social network online communities are social communities wherein locational differences of the members do not realistically permit offline interaction (Ellison, 2007). Social network online communities are essentially online communities formed through the ease of social networking sites.

Previous findings. Prior studies have been conducted to analyze the characteristics and benefits of online communities. Nelson and Otnes (2005) studied an online message board to analyze an online community of cross-cultural brides. The study of their online communication showed that the cross-cultural brides created commonality with one another through story telling. Sharing common experiences enabled the brides-to-be to develop trust and bond with one another. Furthermore, the online community provided the cross-cultural brides with support, advice, and information.

Another study by Kozinets (1997) studied the online communication of *X-Files* (a sci-fi television series) through an online forum. Kozinets discovered that the television viewers within the forum were active receivers and constructed interpretations of the meaning of the television

show. This meaning was not constructed individually, but was negotiated and created collaboratively through exchanges within the forum. Lastly, Kozinets found that members within the forum had a need to speculate about the mysterious. This study is another example of online communities creating shared meaning and establishing relationships based on a common interest.

Gluten-Free Online Community

Definition of gluten free. The term “gluten free” refers to any one who abstains from eating foods containing gluten. Gluten is contained in the grains wheat, barley, and rye, which are found in numerous food products (Mustalahiti et al., 2002). Members of the gluten-free community stop eating gluten-containing food products for several reasons. They may have a gluten intolerance, gluten allergy, celiac disease, or have stopped eating gluten-containing products due to health beliefs.

The most common of these reasons is that they have been diagnosed with celiac disease, which is a chronic inflammatory small intestinal disease that occurs because of an immune response to gluten (Alaedini & Green, 2005). Only 1 percent of the population has been diagnosed for celiac disease, which has left a majority of those afflicted undiagnosed. If left untreated celiac disease can lead to cancer, miscarriages, autoimmune diseases, and infertility (Howell et al., 1995). Currently, the only treatment option available for those afflicted with the disease is adhering to a strict gluten-free diet (Fasano et al., 2003).

Gluten-free lifestyle. Although the academic literature has not yet studied the online communication of the gluten-free community, there have been several studies concerning the quality of life in relation to the gluten-free lifestyle. These elements of the gluten-free lifestyle will provide insightful context concerning the communication within the online gluten-free community.

Each of the studies discovered hardships and negative byproducts of living a gluten-free lifestyle. Lee and Newman (2003) sifted out the hardships of the lifestyle through questioning gluten-free participants on how the gluten-free lifestyle affects different aspects of their quality of life. They discovered that a majority of the participants found the lifestyle had a negative impact on their ability to eat out, their ability to travel, and generally on their family life. The obvious solution then is to prepare meals solely in a home kitchen, but Lee, Ag, Zivin and Green (2007) found that gluten-free products are mostly sold in specialty stores making them 2-3 times more expensive than non gluten-free products. Additionally, a gluten-free diet consists of many commercially prepared foods and is nutritionally deficient compared to a regular diet (Thompson, 2000). Unfortunately, noncompliance with the gluten-free diet is not a viable option; therefore these negative effects cannot be avoided, merely managed.

Blogs. Because of the unique nature of the gluten-free lifestyle, a need existed for information on gluten-free diets. Shauna James Ahern was one of the first people to recognize this void in gluten-free information. Being newly diagnosed with celiac disease, Shauna James Ahern launched “Gluten-Free Girl and the Chef” (formerly Gluten-Free Girl) in 2005, a food blog filled with gluten-free recipes (Suthivarakom, 2011). She intertwined her food blog with the love story of how she met her chef husband, and later the pair published a gluten-free recipe book together, *Gluten-Free Girl and the Chef: A Love Story with 100 Tempting Recipes*. The popularity of Shauna James Ahern’s blog was one of the first that spawned many gluten-free blogs to follow.

Websites/Forums. Although the gluten-free community only recently gained the spotlight, earlier traces of the community were established online through nonprofit websites. In 1974, a similar nonprofit, the Gluten Intolerance Group of North America (now known as the

Gluten Intolerance Group) was established by Elaine Hartsook. This organization was established for those afflicted by celiac disease or gluten sensitivity, both of which require a gluten-free lifestyle (“Media Information,” 2014). The foundation now has a strong online presence spreading information, and setting up support chapters around the globe. This group organizes advocacy groups to petition for gluten-free causes, especially food manufacturers creating safer protocols to ensure gluten-free guidelines have been met (“Industry Programs,” 2014).

In 1990 the Celiac Disease Foundation was established, and it later created a website promoting education and awareness for celiac disease, as well as support services for newly diagnosed individuals (Geller, 2013). Long before the gluten-free community gained widespread recognition, the Celiac Disease Foundation had been linking individuals together in support groups and sharing medical information pertaining to the gluten-free diet.

Nonprofits like these are part of the supporting structure of the gluten-free online community. They are the leaders in size and scope, but there are dozens more organizations whose online presence is solely to share information on the gluten-free lifestyle. As new medical information comes forth about the gluten-free diet or celiac disease, gluten-free community members turn to websites such as these for information.

Websites such as the Celiac Disease Foundation and the Gluten Intolerance Group also allow community members to communicate through online forums. Forums are thread-like messages with a defined topic (Schultz, 2000). Often one user will ask a question which will merit a thread of comments in response from individuals with basic knowledge or experience on the subject. The gluten-free community has a number of online forums dedicated specifically to

topics relating to gluten-free matters (Celiac.com, 1995.; Gluten Free Society, 2010; Gluten-Free Faces, 2013).

Social influence. As more and more gluten-free websites developed, gluten-free individuals began to connect all around the world. Popular gluten-free food blogs such as, “Gluten-Free Goddess,” “Gluten-Free Girl,” and “Elana’s Pantry” boasted of over 50,000+ followers (Durand, 2011). With the growing popularity of food blogs, other websites launched to promote gluten-free awareness. In 2007, “Gluten Free Registry” was launched in an effort to register all the restaurants in the nation that have available gluten-free options (Gluten Free Registry, 2007). As the media stirred awareness for gluten-free lifestyles, new restaurants began to offer gluten-free options and grocery stores began to sell gluten-free products. (“Restaurants adding more,” 2011; “Shopping for a Gluten-Free Diet, 2010)

Celebrities like Jessica Alba, Gwyneth Paltrow, and Victoria Beckham have shared their personal lifestyle choice to follow a gluten-free diet, attesting to its nutritional benefits. This celebrity endorsement further spread social awareness and some individuals began adopting the gluten-free diet regardless of medical necessity (Bauer, 2013).

Some have coined the gluten-free lifestyle as “trendy,” as people adopt the gluten-free diet in hopes of losing weight or being unique, but for those who have been diagnosed with celiac disease or gluten sensitivity, this new awareness has made necessary food options more readily available (Watson, 2013; “Is Gluten-Free Eating a Trend Worth Noting?” 2013). As awareness spread online for the gluten free community, companies and restaurants have become more and more accommodating offline (“Restaurants adding more,” 2011).

The online gluten-free community is a newly developed culture that has gained popularity in the last decade, particularly this last year (Bauer, 2013). There has been a void in

the academic literature pertaining to the gluten-free online community and the social and cultural elements that contribute to the community. This study will analyze the gluten-free online community through a Facebook group and discover the following research questions:

RQ1: What are the key characteristics of the online gluten-free community?

RQ2: Why do members of the online gluten-free community participate?

Chapter 3: Research Methodology and Design

Netnography

This study utilized the method of netnography to better understand the cultural characteristics of the online gluten-free community. Netnography is a new media methodology developed by Robert Kozinets in 1997. It is an adaptation of ethnographic research techniques for the purpose of studying communities and cultures that have materialized through computer-mediated communications (Kozinets, 2010). A netnography aims to develop a “thick description” (Elliott & Jankel-Elliott, 2003, p. 215) of the real experience of the online participator by utilizing various aspects of a traditional ethnography. Netnography captures the advantages of an ethnographic study by allowing the researcher to decode the shared meaning, values, behaviors, beliefs, and shared language of a cultural group (Creswell & Clark, 2007) while eliminating the negative byproducts often involved in conducting a traditional ethnography. This methodology was best suited for this study due to its flexibility, unobtrusive nature, and depth in analyzing the complexities of the online gluten-free community.

Qualitative Nature of the Research

Qualitative researchers seek to understand the “performances and practices of human communication” (Cronkrite, 1986, p. 72) in arenas that do not allow for numerical measurement. Qualitative methods have the distinct advantage of illuminating the “rich symbolic world that underlies needs, desires, meanings and choice” (Kozinets, 2002, p. 2 ; Levy, 1999). A qualitative method was deemed crucial for this analysis since understanding the cultural characteristics of an online community is not a quantifiable measurement. A quantitative analysis neglected “what might be important aspects of the textual meaning” (Fühlau, I, 1982, p. 92). This analysis attempted to delve deeper than counting the words, but to understand the meaning behind them.

This research inquiry falls under the qualitative tradition of phenomenology in its purpose to discover the significant phenomena that occur within the culture of the gluten-free online community. According to Glesne (2006), since the reality is socially constructed the variables are too complex and interwoven to study quantitatively, making a qualitative approach necessary.

Research Design

Previous studies have utilized netnography in conducting research for online communities. This method has been employed in examining boycotters (Kozinets & Handelman, 1998), brides-to-be planning cross-cultural weddings (Nelson & Otnes, 2005), coffee enthusiasts (Kozinets, 2002), anti-Nike individuals (Kozinets & Handelman, 2004), X-Files fans (Kozinets, 1997), nostalgic consumption (Brown, Kozinets, & Sherry, Jr., 2003), and brand loyalty (Muniz & O'Guinn, 2001). Netnography allows researchers to understand the cultures and practices of virtual communities in the same way that anthropologists try to understand that of face-to-face communities (Sandlin, 2007). This defining element of ethnographic insight allowed this analysis to go beyond the "flat and two-dimensional" (Kozinets, 2010, p. 75) analyses of former methods.

Netnographers have been labeled as "professional lurkers" who become immersed in the online community with little to no interference. This unobtrusive element of the methodology has made it an attractive methodology of choice for online cultural studies (Kozinets, 2002). The semi-permanent nature of online dialogue allows past information to be easily recorded and the ethnographic style of netnography allows the researcher to expand on the data by making inquiries that lead to new data.

Previous netnography studies. As mentioned earlier, previous netnographies have been conducted to examine online communities. This study will pattern the research questions and analysis process of previous studies with a few variations (Brown, Kozinets, & Sherry, Jr., 2003; Kozinets, 2002; Nelson & Otnes, 2005). Aside from the variations discussed below, the data analysis will follow the guidelines for netnography outlined by Kozinets (2010).

Research questions. The first research question of this study stemmed from Kozinets' original netnography of *X-Files* fans, where Kozinets sought to discover the "key characteristics" (para. 7) of *X-Files* fan's consumption practices (Kozinets, 1997). The second research question of this study is based on the theoretical framework of uses and gratifications theory.

Analysis. As later discussed in further detail, the data collection methods of this study are conducted according to the guidelines established by Kozinets (2010). Unlike a content analysis, only "significant" (Kozinets & Handelman, 1998, para. 10) or "noteworthy" (Brown, Kozinets, & Sherry, Jr., 2003, p. 22; Kozinets, 2002, p. 11) posts will be included in the collection process. For example, a community post sharing a gluten-free recipe would be deemed less significant than a community post describing a personal narrative. Once these posts have been collected, they will be coded and analyzed to develop themes through the constant comparative method (discussed later), as has been done in previous studies (Kozinets & Handelman, 1998; Nelson & Otnes, 2005; Kozinets, 2002; Kozinets, 1997; Brown, Kozinets, and Sherry, Jr., 2003).

Kozinets (2010) proposes that netnographies should be outlined by the following steps: entrée, data collection, analysis and interpretation, and research ethics (Kozinets, 2010; Langer & Beckman, 2005).

Entrée. The first step in conducting a netnography is to identify an online community of interest and the appropriate research questions for inquiry. These questions will be the

foundation of the research and should allow for the inclusion of various possible results.

Kozinets (2010) suggested asking opened-ended questions that allow further expansion and inquiry. The community of interest for this analysis will be an online gluten-free community, “Gluten Free”, and the research questions (listed previously) should allow for flexibility in examining the different facets of this community. Further reference in this thesis to “the online gluten-free community” will not be referring to the entire online gluten-free community as a whole, but to the singular Facebook group, “Gluten Free.”

Kozinets (2010) also strongly emphasizes the importance of flexibility. This study may be structured, but it was not limited and reduced down to a rigid coding exercise. A content analysis would have merely skimmed over previous archives of online communities without prompting further investigation, therefore restricting it to the confines of the dataset. In a content analysis the researcher would be coding data sets instead of reading them for deeper cultural understanding, nor contemplatively assessing them and seeking insight into how this reflects life within this community and life as a community member (Kozinets, 2010). This study utilized the structure for collecting data and systematically coded the data, but this study also allowed for flexibility to look for deeper community practices. To only code the text from the online gluten-free community would be to suggest that community culture is derived from the units of communication versus the whole. The structure of the coding procedure must allow flexibility to reach beyond the dataset and explore the community as a whole. The purpose of this study was to suggest that there is deeper meaning than bare words; there is meaning in how the words were exchanged, what words were used, and the meaning to those community members at the time of the exchange. The significance is beyond the act of communicating and therefore the method must allow for fluctuation from the standard coding procedure.

Data collection. Before collecting data, the researcher first decided which online venue would be most suitable for the community of interest. As later discussed, one of the limitations of netnography is the sheer volume of available data for any one online culture. Since a netnography is conducted using only online communication, much of the data from the online gluten-free community can be downloaded and copied verbatim. Therefore, this study had to be selective in which information to download for a thorough, but realistic analysis.

There are six main sources for exploring online communities: bulletin boards or forums, chat-rooms, playspaces, virtual worlds, lists, and rings (Kozinets, 2010). This study used a popular gluten-free Facebook forum or group for the analysis of the community. Forums are one of the “oldest and richest” online community systems (Kozinets, 2010, p. 85). Participants post a textual message onto the “wall” (which is the main space used for communicating) and then participants can comment on all post. Participants can also click a “like” button indicating approval or agreement with the post. There are various types of posts, some are purely textual while others include photos, videos, or links to other websites of interest.

This form of the gluten-free online community has been selected for several reasons. First, Facebook is the largest social media platform and its groups are well-organized. This allowed for the data to be easily copied and transferred to a research document. Second, it is openly accessible to online viewership. Anyone with a Facebook account has access to join this online group. Third, the online dialogue is richer and denser than that of other online forms of discussion. Community members’ post lengths are generally a few sentences, but can range up to several paragraphs. Lastly, the community members are easily accessible and background information on each of the members can be found by clicking the link to their personal Facebook profile.

The group selected for study is named “Gluten Free” and was discovered through a simple Facebook group search query. It was selected for its group description pertaining only to the gluten-free lifestyle and because it was the group with the highest membership. The group’s membership currently boasts more than 6,000 members varying in nationality, age, gender, and background. This online community forum allowed for a purposive sample that is richly diverse in membership, accounting for different membership perspectives within the community.

The data for this study was analyzed using a qualitative analysis software program, NVivo 10. This software allowed for organization and deeper insight (Sandlin, 2007). The dataset within the Facebook group was captured through NVivo 10’s new social media feature, NCapture. This program allowed the researcher to capture all textual content inside the Facebook group and format it into a readable dataset within NVivo 10. Within the datasets captured, the researcher utilized the community posts, post comments, links, pictures, and date stamp for analysis purposes. Although the names of the community members were captured, all names within this study are changed to ensure the confidentiality and anonymity of the community members. Community members’ posts quoted within this thesis were numbered in order in reference to the appearance of their post within this thesis. All other community members involved were not numbered.

Data collection of community posts ranged during a three-month span of November 2013–January 2014. A variety of members within the community posted numerous times a day and each post generally had dozens of comments attached underneath. In the interest of time, the “likes” number associated with the post were dismissed. As a numerical aspect, the “likes” did not richly contribute to the significance of the post. In total NVivo 10 captured 2,982 posts and 16,732 comments for the three-month time range referenced previously. As the NVivo 10

process eliminated error in transferring the data, all quotations used in the findings section for this study are direct quotations from the community members.

Analysis and interpretation. The data set imported into NVivo 10 was thoroughly read twice, coded, and classified for organizational purposes. In order to discover the “complexity and internally constructed meaning” (Geertz, 1973) this study pushed further than a textual analysis. Utilizing the constant comparative method or grounded theory approach (Glaser & Strauss, 1967; Corbin & Strauss, 1990), the data set coded was used as the foundation for further analysis. During the first round of coding, themes arose from the data set and were coded into numerous categories within NVivo 10 called nodes. Nodes were created for several different categories: characteristics, conversational subjects, positive/negative attitudes, lifestyle complaints, shared language. The first round of coding explored broad understanding and gained an overview of the community dynamics. In an effort to move from general to specific, the second round of coding validated the previously coded nodes and narrowed the thematic findings into key characteristics of the content of community posts and purposive themes for participation. Several observational elements were included during the analysis process such as noting the word choice of the participants, the emphasis used, and prior conversations between members.

To differ from a content or textual analysis this study was not limited to analyzing the textual posts. The researcher coded pictures, investigated attached links and did a Web search for events referenced by community members. As an investigation of a community, this study was not limited to the text itself and utilized the flexibility of netnography to explore each pathway within the community. Posts were analyzed based on their significance and not necessarily numerical order. For example, posts explaining recipes were skimmed over to give more time to

analyze an experience post. The dataset captured served as a foundation for analysis, but thematic findings were a culmination of observing the entire community.

Kozinets (2010) described three different types of data collection that can be involved in netnographic research: archival data, elicited data, and fieldnote data. Archival data is data copied verbatim from pre-existing posts of community members. Elicited data is new data created through interaction with the researcher and fieldnote data, which are the observations of the researcher. This study includes both archival data and fieldnote data. Archival data is the dataset copied directly from the gluten-free Facebook group through NVivo capture. Elicited data was not used during the study because interaction during the study would disrupt the unobtrusive element of the study design. The fieldnotes used during the analysis are the researcher's observations about the gluten-free online community. Both types of data were used to organize distinct purposes and themes that emerged from the analysis of the online community.

Research ethics. Kozinets (2010) gives a set of guidelines for ethical standards when utilizing the methodology of netnography. First, researchers should announce to the online community members their intentions to study the community. Second, researchers should secure the confidentiality and anonymity of the participative community members. Third, researchers should practice member checks and receive feedback from the online community members.

This study agrees with the opinion of Langer and Beckman (2005) who state that Kozinets' guidelines are "far too rigorous" (p. 195) and taint the unobtrusive nature of netnography. They continue that asking permission to view a post intended by the author for public viewing would be unusual. It would be similar to one walking into a public library and announcing that they will be studying there. It would have weakened one of the strengths of

conducting a netnography, minimizing the “researcher effect.” Therefore, by analyzing the data without interrupting the online community, the researcher was assured they did not unintentionally affect the data.

The Facebook group selected in this research is open to the public for viewing. As with any social media platform one must join Facebook and the group before accessing the content. Any individual can join Facebook and the group by the process of a few simple steps. All posts used by this research have been originally posted publicly, meaning the author was aware that anyone in the general public has access to view that post. The public nature of the post disqualifies the need for the researcher to obtain further consent.

On the other hand, the study followed a strict code of ethics. With any direct quotation, all names were changed using a numbering system for anonymity and confidentiality. All quotes used in the study were verbatim from the research, including any grammatical errors made by the community members.

Member checks. Member checks are a practice where the researcher shares the final research findings with the community members that have been studied in order to allow for feedback (Kozinets, 2002; Arnould & Wallendorf, 1994; Lincoln and Guba, 1985). As stated previously, Kozinets’ guidelines have been revised for this study as any interaction with the community members would have tainted the unobtrusive nature of this study. This attractive quality would have been diminished and the findings would have been affected by researcher involvement. The option to opt out of member checks has been utilized in previous netnographies (Van Herten, 2010; Garland, 2009) due to their interfering nature and the potential to taint the findings. Despite the non-inclusion of member checks, the procedures utilized during

this study fully satisfy ethical standards for analyzing public texts (Langer & Beckman, 2005) based on media and communication research guidelines.

Validity and Reliability

The purpose of measuring the validity of a study is to ensure the researchers measured what they intended to measure. Often in the realm of qualitative study, the topics being studied are too multi-faceted and abstract to measure. This study observed an online gluten-free community for key characteristics and member purposes for participating in the community. The complex nature of this study cannot be classified within traditional validity, since this study claims that the observance of key characteristics and member purposes cannot be quantified. This study embraced the subjectivity of the researcher as the tool necessary to understand the context by being within the context as a member of the community. This study also adhered to standards of validity by ensuring that all actions taken in the analysis were solely for the purpose of answering the original research questions. Aside from the research questions, this study did not seek to study any other realm of the online gluten-free community. Any other questions that were generated from the results of this study will later be discussed during suggested future research.

The true nature of reliability is unattainable in the method of netnography. Reliability is derivative of consistency and the very nature of observation is inconsistent. In the constant comparative method, new questions stem from the analysis of the data (Glaser, 1965). These questions are subjective to the researcher's observations within the dataset and from their experience interacting with the community members. A general rubric can be written for guidance, but each interaction will be a unique experience and therefore impossible to replicate. According to its ontological mindset, each researcher's experience is only understandable

through his or her individual perspective. Therefore, the interpretation is contingent upon researchers' understanding, through the lens of their unique reality. Another researcher would be unable to comprehend the interactions, the data, and the experiences within the gluten-free culture the same way as the original researcher. Throughout the research analysis, standard methods were repeated to develop themes and highlight patterns, but as a whole the individual perspective and observations of the researcher highlighted the themes. As a unique perspective, another researcher cannot replicate these findings. Therefore, netnography can only be partially reliable—"partially" reliable because the research was designed to ensure standards of academic rigor were observed. The findings of this study are valid, but they are neither generalizable nor thoroughly objective, despite the researcher's best conscious efforts to be objective.

Strengths

Netnography is quickly becoming a popular qualitative methodology because of the flexibility it allows the researcher. Kozinets (2010) argues that it is participant-observational research that is based on computer-mediated communication. That is the foundation for netnography, but this participant-observation could include: historical case analysis, interviewing, archival data collection, videography, and a number of other techniques to acquire information on the field of study. This allows the researcher great flexibility in choosing the best technique for collecting data, yet still providing the methodological framework of netnography.

In contrast to ethnographic research, the researcher can conduct a netnography in a much shorter timeframe and on a smaller budget. An ethnography involves complete physical immersion within a community, sometimes taking years to conduct. The timespan of a netnography is contingent on the work ethic of the researcher. This study was completed within an eight-month timeframe, utilizing a three-month timespan of community dialogue. Since the

data used were public information, there was no cost involved in studying the online gluten-free community other than the cost of the qualitative analysis software. This elimination of burdensome finances involved in a traditional ethnography, made the method of netnography a much more attractive option.

Besides the monetary benefit of netnography, there were also procedural advantages to conducting a netnography. For example, the data used during the study was copied verbatim. This dismissed previous data collection errors commonly involved with ethnography. The exact transfer of data from the online gluten-free community to the analysis software guarded against misinterpretation of the community dialogue and protected the original style of the community text.

Lastly, the consequences of “researcher effect” were non-existent during this study. This interaction can potentially pollute the data due to interference by the researcher. This study was based solely on researcher observation, which did not interrupt the natural flow of communication within the community. Netnography acquires the quality data of ethnography, without the obstacles of trying to physically enter a foreign culture. Thus netnographic researchers are given the term “professional lurker,” for lurking in the background of a community and observing its community practices (Kozinets, 2010).

Bias

There was unavoidable bias present within this netnography of the gluten-free community. Since the instrument used for gathering the data was a researcher—prone to individual experiences and worldviews—the data are naturally vulnerable to bias. What the researcher deemed as significant characteristics may have only seemed significant in relation to her personal cultural experiences. In this study, the researcher had a personal connection to the

gluten-free community, since her sister-in-law is a popular food blogger within the wider gluten-free community. This might have swayed the researcher to cast a positive light on the community.

Lastly, bias was present in the selection of data for analysis. The online gluten-free community has an immeasurable online presence and the presence of the community can be seen in various online forums. The data selected for this study was not selected at random, but purposively due to the form of the community. The Facebook group was selected for its public accessibility, its diverse community members, and its easily downloadable data. Selection for purposive samples will naturally have an element of bias. Some bias within qualitative research is unavoidable, but through strict research protocol this analysis sought to limit and produce credible findings to contribute to the academic world.

Chapter 4: Thematic Findings and Discussion

At the completion of the netnographic exploration, the analysis of the online gluten-free community crystalized into several themes. These themes are explained in the following two sections, following the research questions that initially guided this study. The first section, in answer to the first research question, is an explanation of three paired characteristic themes that were most prominent within the online gluten-free community: suspiciousness and distrust, defensiveness and frustration, and passion and determination. The second section, in answer to the second research question, is composed of three purposive themes for describing why the community members participate: validation, friendship, and education.

Key Characteristics

Three pairs of themes emerged during the exploration of the online gluten-free community in answer to the first research question concerning the key characteristics of the online gluten-free community. Due to similarities found within each theme, two descriptive characteristics were chosen for each of the three sections. To simplify a community to three characteristics would be limiting and would ignore the diversified nature of the group. These characteristics are not a description of each individual member of the online gluten-free community, but they represent the dominant over-arching themes of the characteristics of the community as a whole. The following three themes of characteristics were identified—suspiciousness and distrust, defensiveness and frustration, and passion and determination. Each is described and discussed below.

Suspiciousness and distrust. The quality of being suspicious often holds a negative connotation. The suspicious nature of a person is assumed to be presupposing or without justification, but the true meaning of suspicious is “having or showing a cautious distrust of

someone or something” (Oxford Dictionary, 2014). The suspicious qualities of the online gluten-free community are often *with* justification and are based on prior bad experiences. The community members have retold these experiences online as a warning to other members of the community. As a community, their suspicious nature is an indicator of a deep distrust with the medical community, food, and people.

Of the medical community. The most recognizable indicator of being suspicious is in the community member’s opinions toward doctors. There is a wide array of symptoms that a person can experience when having negative reactions to gluten. Many of these human responses mirror other possible diseases or causes. Due to the ambiguity of the symptoms and the limited options of testing for celiac disease or gluten intolerance, community members are often left with uncertainty or disbelief. Stories circulate of misdiagnosis, ignoring symptoms, or dismissing patient’s complaints, which led the community to adopt a culture of doctor skepticism. This is apparent in the following community member’s post:

Member 1

They have such an attitude that we have to do so much research on our own . . . but if I hadn't pushed and pushed and threatened to go elsewhere if some test weren't run . . . I could've died . . . some levels were so low . . . and he just wanted to blame everything on age and menopause!! . . . Listen to ur [*sic*] own body...u [*sic*] know!! . . . And yes . . . I now have a new Dr.!!

Stories such as Member 1’s are common throughout the community and they perpetuate distrust between doctors and the gluten-free community. As community members begin to share negative past experiences with doctors, tempers begin to rise recounting the stories. Observing this bitterness toward doctors is unavoidable in the following community post:

Member 2

And people wonder why I have a problem with doctors!!! So many of them are such a waste of space! I actually told a doctor “I want to see the person who actually sat your exams, because you're an idiot. There's no way you could have sat those exams and passed!” That was one of the doctors I saw when I was trying to get the tests done for coeliac! He was the one who told me I just needed more fibre [sic] in my diet and to eat more wholegrain bread and high fibre cereals!! That was after I told him I'd been eating those things and getting sicker and sicker! >:(

Part of the bitterness and suspicion comes from the urgency to solve medical discomforts and the vague answers that come from the medical field. Community members do not trust that doctors believe their symptoms exist or that they do in fact suffer from extreme discomfort. The community members turn to online interaction to vent their frustrations and often another community member can mirror a similar story. The following community post is an example of a negative doctor interaction:

Member 3

The current diagnosis came after me pushing my Dr. [sic] for answers to a 4 year long migraine headache! So he reluctantly sent me to a neurologist who then said sat [sic] me in his office and proceeded to tell me “it's all in your head” and although I knew he meant I was making it all up, I looked at him and responded with “well, yes, that's why I'm here!” It wasn't until I pushed to go back to the Endocrinologist who had diagnosed my thyroid condition back in [19]89 that I finally started getting the answers I was looking for. He ordered the tTG-IgA Blood Test and when the results came back as “through the

roof” he then sent me to a gastroenterologist who did the endoscopy/biopsy and she confirmed Celiac [*sic*].

The post by Member 3 is an excellent example of the tug-of-war relationship that many community members share with their doctors. Community members are trying to find answers to their discomfort and often it is a long process to receive a diagnosis. In this post the community member is emphasizing that her doctor did not believe her and shadows the second part of the story, where a doctor aided her in the correct diagnosis. Doctors are the main source of information for medical inquiries, but when they do not provide a solid answer some community members look for alternative answers and adhere to the gluten-free diet voluntarily. The following community post is one such example:

Member 4

My daughter was sick since she was born, had stool tests, blood tests all came back normal, but this kid couldn't go to the bathroom would scream, have sweats then chills , they put her on such a high dose of mirlox [*sic*] that help her go to the bathroom, 3 gastro later still no answers, then took her off all gluten and now 10mths [*sic*] later she has no more headaches, no more stomach problems. I feel doctors just dont [*sic*] listen to what we are saying oh she is 11 so it took 10 yrs [*sic*] for me to figure it out with my friends.

Beneficial reactions such as this reaffirm the doctor skepticism and the lack of knowledge about gluten intolerance and celiac disease in the medical field. Community posts such as these emulate the mistrust community members should have toward a doctor that does not quickly instruct a gluten-free diet. Even if a doctor does not agree with the necessity of living a gluten-free lifestyle, some community members will stay confident with their self-diagnosis. This is shown in the following post:

Member 5

Doctor's [*sic*] attitudes haven't changed in years! This whole “If I didn't give you the diagnosis and treatment, then the results are not admissible regardless of whether it worked or not.” So many of them are still against diagnosing gluten as a cause of so many health problems, despite the proof! I even had one doctor tell me he didn't believe coeliac's was a real disease! I reported him! If the medical profession has these sort of opinions, it's not surprising so many other people don't take our health problems seriously!!”

Until lately, celiac disease was considered a rare disease (Murray et al., 2003) and seasoned community members who have lived the gluten-free lifestyle still hold bitterness for lengthy time periods of misdiagnosis. For the community members who felt relief from their symptoms after living a gluten-free life, the time period of uncertainty and doctor visits does not go unremembered. This resentment is felt in the following community post:

Member 6

Effing gluten the whole time! I am now slowly releasing my anger to alls [*sic*] those incompetent Drs [*sic*], specialists, and people who told me to drink more water, increase magnesium and eat bananas (like I hadn't tried that in 20 years of suffering!)”

Member 6 reflects on the years of misdiagnosis and the frustration from doctors who minimized her symptoms. The shared examples—such as Member 6's—illuminate the distrust, disrespect, and disbelief that the online gluten-free community members share for doctors. There are exceptions for every rule, but overall this is a community who feels highly skeptical toward medical counsel and does not take any diagnosis as definite.

Of food providers and products. As stated earlier, suspicion is a characteristic for being cautious due to distrusting someone or something. Community members are quick to mistrust a company, a product, or a person if they sense an uncertainty of later regretting that trust.

Community members often circulate stories of trusting, only later to find themselves miserably sick. The following example is a common storyline posted in the online gluten-free community:

Member 7

Went into San Francisco today as a family fun day. Interviewed a restaurant we wanted to eat at and they assured us they could make me a gluten free meal. Server was great and was knowledgeable. Ordered rice noodles with GF soy sauce and chicken. Meal came out and with confidence took a big bite including the chicken and then looked down to see the chicken had been fried with a coating. My husband flagged the server down and told him the chicken did not appear to be GF. The server took the plate and came back very discouraged. He was very sorry and showed me the ticket where he told the chef GF. The Director of Operations came over and apologized and asked what he could do. I looked and said nothing. I will be sick for the next week. He have [*sic*] me his business card and asked to keep him posted on my health. The question is do I or just know you can't trust any restaurant and move past it?

Member 7 uses words such as “interviewed”, suggesting that she had done her due diligence. She also used words such as “assured” and “confidence,” signifying that she trusted the restaurant would treat her medical needs seriously. Once her trust was lost, Member 7 was left questioning not if she could trust this restaurant again, but if she could trust *any* restaurant for that matter. Community posts such as this encourage fellow community members to reexamine if they should trust restaurants and risk a future family day of their own being spoiled.

Stories and examples such as Member 7's circulate on the online gluten-free community and perpetuate the feeling of mistrust. Community members post negative experiences with restaurants, family members' cooking, beauty products, company information, and more. The flood of negative experiences pushes community members to post extreme generalizations such as the following:

Member 8

Trust no one and read everything..friends have poisoned me thinking I was being silly..spice rubs have even gotten me in barbecue places...it's a mine field [*sic*] out there..”

Or

Member 9

You can't trust anything! I only trust me and my mom's cooking!! GF is one of the worst allergy's [*sic*], a lot of people don't understand (like restaurants).”

Member 8 and Member 9 both exclaim that you cannot trust anyone or anything. Member 8 even states that living a gluten-free lifestyle in a gluten-filled world is similar to a minefield. Posts such as these create a nervous energy that encourages community members to feel that they are alone in their efforts to live a gluten-free lifestyle. Even well-meaning family members should not be trusted and suspicion should be felt with anything or anyone. This sort of frenzy leads newer community members to feel discouraged. This discouragement is exemplified in the following post:

Member 10

You know, I don't know about the rest of you, but I'm sitting here and reading everyone's comments and links to sites - and I've got tears running down my cheeks. I feel hunted

and vulnerable, with nothing solid to trust. How do I know whether my shampoo has wheat? My toothpaste? I just called Solaray about a B-Stress vitamin and they said while there were no gluten ingredients, they could not claim gluten-free without testing of the delivered product. What the heck does THAT mean? I understood it to be, "You're on your own, lady." I think the worst thing I discovered was that even though Walgreens tracks my penicillin allergy, I told them several times I could not have gluten. When I continued to be sick, and wanted to verify with them, they said they don't maintain that information and have no idea whether the meds [*sic*] they dispense have gluten in them. They referred me to look online!! This is a pharmacy, for heaven's sake! If they don't take this seriously, who does? They're the ones with chemistry degrees.

Member 10 has become emotionally overwhelmed—indicated by her description of crying and feeling “hunted”—which is a feeling that often appears on the online gluten-free community. The pressure to distrust foods, companies, and people that used to be intertwined in her life is too much. As overwhelming as it is, Member 10 feels alone in seeking this information and educating herself to make smart choices. This sense of abandonment and loneliness is apparent in Member 10’s interaction with the Walgreens pharmacist as she realizes no one can guarantee her medicine is gluten free. Perpetuating this belief of “you’re on your own” feeds her nervousness and ultimately paralyzes her from using anything, whether it be beauty products or medicine.

The suspicious characteristic of the online gluten-free does not necessarily occur in each individual, but is displayed as a community as a whole, potentially from the circulation of negative experiences. The multitude and variety of negative experiences lead community members to generate overall feelings of suspicion. The ability to uniquely understand the

consequences of such negative experiences and live vicariously through the community member of the post reinforces this cautious distrust and suspicious nature. This consistent occurrence of negative experiences and suspicious nuances created an overall theme of suspicion within the online gluten-free community.

Defensiveness and frustration. The second pair of characteristics to emerge during the netnographic analysis of the online gluten-free community was the display of defensiveness and frustration. Defensiveness is related to the characteristic of suspicion due to similar currents of distrust, as it's a common response to a host of bad experiences. Several situations and perceptions have pushed community members to feel and act defensively or to become frustrated. When frustration continues to build over time, many community members take a more aggressive role by being defensive.

About lack of understanding by society. A common frustration and root of being defensive stems from a general lack of understanding. It is a lack of desire to understand by others, as well as a lack of sympathy for the harm being uneducated can cause, that leads to blatant frustration on the part of the community members. This frustration is exemplified by the following community member who was frustrated with mislabeling of a supposed gluten-free product:

Member 11

Don't these companies get it? It's either gluten free or it's not!!! I wish they would stop playing around with the verbiage. I'm tired of companies like this looking at the Celiac Community as a \$\$\$\$ [*sic*] market and just wanting to jump on the bandwagon to make money off us whether or not it gets us sick.”

Member 11 is fed up with gluten-free marketing schemes and has turned to the online gluten-free community to vent her frustrations. Community members are meticulously careful in reading labels, calling companies, and double-checking to make sure products are gluten free before consuming them. Gluten-free community members assert that companies are now seeing the large profit margins to be gained by the gluten-free community and have been anxious to receive the GF (gluten free) label. Some companies are sloppy with their quest to define their products as gluten free and do not admit that cross-contamination with wheat from other products can produce the same effect and make someone ill. Hence Member 11 saying, “Don’t these companies get it?” because some companies do not understand the smallest amount of cross-contamination can affect a gluten-free community member. The following community post explains the harmful effects and cause of many cross-contamination situations:

Member 12

It's not necessarily that they process the foods in a wheat plant to cause cross contamination. . . . Many of the facilities want to say they are gluten free, but use FLOUR to dust the belts, etc [*sic*], to keep things from sticking together: nuts, shredded cheese, jelly beans, etc. That's why it's contaminated, & [*sic*] they don't understand what it does to people. The actual items don't contain the gluten, but the processing causes the issue.

The community members feel defensive toward companies whose lax policies have made them ill. Community members practice a gluten-free lifestyle for various reasons, but the majority will experience harmful side effects when they consume trace amounts of gluten. Becoming defensive is a natural response to the lack of understanding that surrounds this community. This lack of understanding and even criticism does not only come from unfamiliar sources.

Community members feel defensive when explaining their dietary restrictions to family members and friends. The following community posts highlight such criticisms:

Member 13

I've gotten a lot of criticism from non-gf [*sic*] friends and even some who are about "forcing" it on my husband, but he made the choice himself and is incredibly understanding.

Or

Member 14

It takes family & [*sic*] friends quite a long time to get their heads around what we can and can't eat doesn't it [community member name]? I've been GF for 6 years now and my family still have trouble with understanding the cross contamination rule and I've been accidentally glutened [*sic*] a few times because of it! :(

Or

Member 15

I hear you [community member name] its [*sic*] unreal that our own family members don't understand!!!! Makes me angry and sad at the same time!!!!

The lifestyle change to exclude gluten from all food and products is a harsh transition and community members feel jilted when those close to them do not take the time to understand. This can cause them to become defensive as noted in Member 15's response, "its unreal", or Member 14's comment that family members or friends cannot "get their heads around" what is gluten free and what is not. This defensive characteristic is also seen in Member 13's argument that her husband chose to eat gluten free in solidarity with her and that she is not forcing the lifestyle upon him.

About sensitivity as a real health issue. Members of the online gluten-free community also feel defensive about their diet as a treatment to a real illness, whether it be an autoimmune disease, an allergy, an emotional illness, or some other sickness. Community members will at times lash out about others who adhere to the gluten-free lifestyle out of choice because it discredits those who need it for health purposes. The following community posts illustrate this behavior:

Member 16

This Urks [*sic*] me, yeah like we choose to be gluten free. It's not just a tummy ache and move on. I have celiac has made me very sick [*sic*]. It's not a fad it's our life.

SHEESH!

Or

Member 17

What truly sucks is the ignorance that most people have that don't understand that celiac is a problem and it's people like Jimmy Kimmel that should shut their pie hole and get a grip.....thank you I will now get off the soap box.

Member 17's post points out that even pop culture icons, such as Jimmy Kimmel—a late night talk show host—have jabbed at the gluten-free lifestyle; he even called individuals who live a gluten-free life a profane name and stated, “I don't even believe gluten exists” (“Gluten free is not a scam,” 2014). Instances like this perpetuate a lack of sensitivity toward those who already struggle to find safe gluten-free food outside of their personal kitchens.

About sense of social isolation. While some community members are defensive about the lack of awareness, others are defensive about the amount of social awareness. Food is often a large part of socialization and at times community members feel defensive about needing special

accommodations to eat a gluten-free diet. The following posts highlight examples of social situations:

Member 18

Next, do any of you have problems with snacks or dishes you take to parties? It seems like the past few times, hardly anyone would eat what I bring. Not sure if people are just afraid of contaminating my food or if it's something else. Thinking about just providing non-food items from now on. I can't help but feel offended. Parties and eating food prepared by others are tough. :-)

Or

Member 19

My two best friends have both gone GF in the last couple of years also so at least now it isn't just me feeling like the odd one out.

Or

Member 20

Where do I start what can I eat and still want to enjoy life, went to my first BBQ and they had no safe food for me they forgot so it was a lonely and upsetting event to go through so any help would be great what foods to avoid.

These posts illustrate the feelings of isolation and the unflattering title of needing “special” arrangements, which often times makes community members feel defensive about their dietary needs. They want their friends, family members, and co-workers to understand the seriousness of needing to eat a gluten-free diet, but this awareness can lead to social isolation or feeling left out.

Member 18 “can’t help but feel offended” that her dish at the party was avoided.

Complaints over taste and textures are often associated with gluten-free food and community members are anxious to have food taste similar to original popular dishes, as illustrated in the following posts:

Member 21

Has anyone bought gf bread at Costco? It's called ener-g [*sic*] foods. I'm just trying find a bread that taste [*sic*] normal. I don't remember the brands but they taste like saw dust.

Or

Member 22

Look up old recipes too, like traditional peanut butter cookies with just peanut butter eggs and sugar. Taste like normal stuff. A lot of the gf [*sic*] doesn't taste good so learn to adapt is tricky but stick to things you already really like.

Hence why Member 18 felt defensive and self-conscious that her dish was not being devoured as the others were. Member 19 and Member 20's posts both note feelings of loneliness and social separation as their dietary restrictions have caused a rift in their social settings. Examples such as these illustrate members of the online gluten-free community's defensive characteristic to separate their gluten-free lifestyle from becoming part of their core identity.

Defensive toward outside community. The defensive characteristic of the online gluten-free community is often exhibited only after being provoked. At times community members feel defensive toward unsuspecting members outside of their community. The defensive nature toward those who lack understanding of the disease can be directed to outside community members who do not have a responsibility to be well versed in details of a gluten-free lifestyle. Being defensive toward those who are unaware of the gluten-free lifestyle is displayed in the following post:

Member 23

Me: can you tell me if your salads are gluten free?

Person behind the counter: those two are but the potato salad isn't.

Me: the potato salad? That's odd! Can you tell me what's in it that has gluten?

PBTC: I'll have to ask the chef.

Chef: the potato salad is not gluten free

Me: can you tell me what ingredient has the gluten?

Chef: the potatoes

Me: uhhhhh [*sic*] actually potatoes are gluten free

Chef (definitively): no I looked it up and it said they weren't gluten free.

Me: um ok.... Well I'm coeliac and I can assure you they are. I'll have the potato salad.

In this example the chef was trying to accommodate the member of the gluten-free community, but instead was mocked for being cautious and not realizing that potatoes were gluten free.

Members of the online gluten-free community often post about lack of accommodations, lack of awareness, and lack of understanding. Circumstances could be justified, but at times the members of the community feel entitled to special arrangements for their dietary restrictions.

When the outside community cannot or are unsure how to accommodate them, they are mocked or berated as uncompassionate. This is shown in the following example:

Member 24

Now this issue I'm having is my sons school cafeteria workers clearly have no clue. On days they serve stuff my 12 yr [*sic*] old can't have he orders salads. BUT they put croutons on it (he takes it off) but it's contaminated after and now he's been sick and has about 9 canker sores. He gets these if he's exposed to gluten. They are dumb! He's in a

restricted diet but yet they do this. . . . Off to school today I go. . . . I'm so mad I can't think straight.

Or

Member 25

Unbeknownst to me, the company that makes the yeast I use is no longer making the yeast. I thought Whole Foods had just stopped carrying it. I went to New Seasons and my OCD went into high gear. The New Seasons I went to had quinoa flour sitting right next to spelt flour! When I say right next to, the packages were practically touching.

Member 24 expressed defensiveness toward the cafeteria staff at her son's school for their lack of training for dietary needs. The cafeteria workers may not have the necessary training to accommodate her son's medical needs, but this is an expectation for Member 24. Few people outside of the gluten-free community are aware that a tiny particle of gluten can have the same damaging effect as a slice of bread. The school cafeteria worker then assumed she was accommodating his dietary restrictions by removing the offending substance. In Member 25's post he assumes that the grocery store clerk is expected to know about the sensitivity of the gluten-free community and separate the packaged flours. Little did the grocery store clerk know (assuming he knew the difference between quinoa flour and spelt flour) that if a bag of spelt flour potentially broke and poured onto the quinoa flour bag, it could potentially contaminate a gluten-free community member's home kitchen. Examples such as these illustrate cases where community members become defensive and broaden their expectations to expect awareness and training that offline communities are unprepared to accommodate.

Passion and determination. Throughout the netnography of the online gluten-free community, the community members often displayed the characteristic of passion. This key

characteristic is exemplified in their dedication to discovering the gluten-free lifestyle as a remedy to their medical symptoms, helping their family and friends adapt to their new lifestyle, and to personally adapt to the many changes that are coupled with living a gluten-free life. The members of the Facebook group “Gluten Free” continually displayed a passion for living, researching, and sharing the lifestyle.

To adopt a gluten-free lifestyle. The passionate streak within the community is often displayed as determination to adhere to a gluten-free diet. There are many changes that occur when adopting gluten-free practices and the willpower to do so requires a strong belief in adhering to the lifestyle. This strong belief begins in first searching for the answer to undiagnosed symptoms. Many individuals suffer unknowingly from celiac disease, considering that for each person diagnosed with celiac disease another five to 10 are left undiagnosed (Fasano & Catassi, 2001). This group of undiagnosed only considers those suffering from celiac disease and does not include those suffering from a gluten allergy or other medical necessities for abstaining from gluten. This is characterized in the following community post:

Member 26

It took 15 years to figure out. I had 4 egd [*sic*] and an ercp [*sic*] and my gallbladder removed. I even had one dr [*sic*] in the er [*sic*] tell me the pain was "phantom gallbladder pain" once my gallbladder was removed. My family dr [*sic*] actually noticed oddly high eosinophils on a cbc [*sic*] and started things in motion for a real diagnosis. I chose to go to Rush, a well know [*sic*] Chicago hospital because I saw so many gastrointestinal dr [*sic*] locally without luck. The dr [*sic*] knew right away what was wrong and for the FIRST time didn't treat me as crazy. Eliminating gluten stopped stomach problems, skin rashes (eosinophil rashes dr duagnosed [*sic*] as folliculitis [*sic*] and moved on) severe

anxiety (of course I had meds for that) a constant post nasal drip, and SI joint pain I was going to PT for. The gastro [*sic*] that diagnosed me IBS [*sic*] and pretty much crazy [*sic*] got meeting with me to show him he was wrong.

For Member 26, finding an answer to her symptoms was a 15-year journey. If it were not for her determination to find out the cause of her discomfort, she would still be suffering repercussions for consuming gluten. This sort of persistence for Member 26 was used for finding her diagnosis, while other community members use persistence and determination to make less crucial discoveries. As discussed later, many community members will exchange recipes to find substitutions for nostalgic foods. Despite repeated failures, many community members are determined to find the perfect replacement recipe. This is shown in the following community examples:

Member 27

I tried everything from substituting coconut flour, gluten-free flour, eggs. They all turned out awful. I am one determined chocolate lover though and I refuse to give up!

Or

Member 28

Really needing some advice. Need a substitute for cream of celery soup. Looked at the Campbell's label and sure enough it said "wheat flour." Found and bought gluten free Cream of Chicken and Mushroom Soup by Pacific. It's not going to taste the same yet I am determined to find the best substitution.

Both Member 27 and Member 28 are determined to find the best substitution to make recipes they enjoyed before being diagnosed. Although it would be easier to give up on the recipe, many of the community members refuse to stop enjoying the foods they love because of their new

lifestyle. Instead they find alternatives, no matter how many attempts it requires. This passionate quest to recreate old food could be for a number of different reasons, but one common reason is to help family members transition. Because cross-contamination is an easy mistake, many community members choose to make their home kitchen a gluten-zero zone. This requires that the family members also join a gluten-free lifestyle when at home. This can be met with resistance, but the determination of community members often earns family support. This is illustrated in the following post:

Member 29

I have learned recently I have gluten intolerance. My husband and daughter refuse to go GF or even try anything we eat that is GF. I am determined to have the entire family go GF this year. Since I do the food shopping alone, I have started to put things in Tupperware or Ziploc bags as soon as I bring them home from food shopping and throw away the GF packaging. My daughter LOVES the GF cinnamon bagels. She puts vanilla icing on them! My husband has always hated cinnamon and he Loves [*sic*] them with icing too!

Member 29 realizes that her family is going to challenge the idea of changing to a gluten-free life, but that has not slowed her determination to still convince them. By hiding gluten-free packaging and choosing gluten-free sweets, she believes she will slowly win them over. It is attitudes like Member 29's that display a passionate determination to live a gluten-free lifestyle no matter what challenges arise.

To study nutritional issues. The members of the online gluten-free community are hyper aware of the food they are consuming because they have to analyze each component to screen for gluten. This awareness often leads to a passion for eating healthy. Topics often associated with

healthy eating—juicing, non-GMO, paleo—are included in community discussions, although they are not necessary to the gluten-free diet. This is displayed in the following posts:

Member 30

Thats [*sic*] why I am getting ready to go all fruits and veggies for a while...when I first went GF I felt great...now the slightest thing I get itchy throat break out in hives and get cramps and end up in the bathroom [*sic*]. And since I'm a vegetarian already figured might as well go vegan. I've even had to switched all soaps for laundry and dish to clean and free and now going to switch all other cleaning to vinegar.

Or

Member 31

So I've been gluten free for over a year and feeling great aside from a few small mishaps and accidents!!! So, my New Year [*sic*] goal is to gradually go raw. . . . Does anyone on here eat fully raw? Do you know any good resources such as a group like this where I can ask Qs [*sic*] and find information from people?

Or

Member 32

Plus...only eat produce when its [*sic*] in season....watched a newsfeed on why to do this...simply because tomatoes when purchased out of the season have been sent to us through other countries...the seed is crossed with a fish DNA...making it so it will grow in the cold months.

Or

Member 33

Well, my friend who introduced me to gluten free did get tested before she went GF and her test came back negative, but she and I have the same symptoms. So I decided to forgo the whole expensive testing process and go GF and since then, I've felt really good. I recently started juicing as well and now I feel amazing!

Once both Member 31 and Member 33 mastered the gluten-free diet, they wanted to move to a more restrictive lifestyle by eating only raw foods or adding juicing. This is one example of community members escalating from a gluten-free life to more extreme health plans. Member 32 also displays this passion for clean eating during her discussion of eating seasonal produce. Eating seasonal produce is not a requirement for adhering to a gluten-free lifestyle, but through researching and practicing the gluten-free diet, many community members begin to adopt stricter health practices. Lastly, Member 30 transitioned from vegetarian gluten-free to vegan gluten-free and then switched out all of her household cleaners for natural products. These examples display the escalation from a gluten-free lifestyle to adding stricter philosophies of health.

To educate. As discussed in further detail below, the online gluten-free community is determined to help educate those around them on the gluten-free lifestyle. But the quest to educate society and one another is not always a smooth topic within the online gluten-free community. Being a passionate group of individuals, often opinions and tempers clash during group discussions. The desire to help newer members, combined with conflicting information concerning gluten, leads to heated debates as community members fight about their factual beliefs. An example of fact fighting is displayed in the following post:

Member 34

Not true. Most of those ingredients she listed are the ones that can be caused by cross contamination. You also have to ask if the product [*sic*] is manufactured on a machine

that also processes products that contain gluten. No offense [member name] but your response shows how little you know if you have celiacs [*sic*] disease and gluten makes you incredibly Ill [*sic*], you would never say a statement like that. Please educate yourself, or ask questions.

Member 34 does not sugarcoat her disagreement and feels angered by another community member's apparent ignorance of the gluten-free lifestyle. Community posts such as this portray the passion toward being an educated and knowledgeable community member. Community posts with false information that could potentially confuse newer members are not left unnoticed and the community member who made the post will be publically corrected. When publicly corrected it is often done harshly with little mercy. This is exemplified in the following post:

Member 35

[Member name], you waste your voice. There are too many out there who seem to always know better, seem to live their lives better and without checking with reliable sources seem to always know everything. Coke has gluten???? Corn has gluten??? Rice has gluten???? I've heard such sh#t [*sic*] on these sites.....wish I could weed those people out and block em [*sic*]!!!

Member 35 does not take this misinformation lightly and publically states that this community member should be blocked from the community entirely. Member 35's passionate post displays that education is a strong factor within the community and tainting educational efforts is one of the most grievous mistakes a community member can make. The online gluten-free community is plagued with uncertainty by outside sources—food products, mislabeling, social ignorance—and therefore community members become informational purists, determined to ensure only correct information circulates within the community.

Leading to community discord. At times the members of the online gluten-free community will push a position to the extreme. Group discord issues arise when community members become too passionate. Emotions become heated, opinions clash, and community members express their distaste with the group. The following post is an example of a community member who has become disillusioned with the group during a heated discussion:

Member 36

Being fairly new at figuring out on my own (After many doctors in [sic] 3 different states) about my issues with gluten I was VERY happy to find a few sites I could go to and ask questions. This site being one of the latest. I hate to say it but I am UN-LIKING this site. I wanted a place to go and ask PERSONAL PERSPECTIVE.....not a place where I get to watch as other [sic] BERATE and CRITICIZE other ADULTS for choices and the way they view things. [community member name]...your post was SPOT ON. When did people forget what our grandmothers taught us about NOT SAYING ANYTHING AT ALL IF YOU CAN'T SAY SOMETHING NICE or even BEING NICE TO STRANGERS. Whether you have Celiac, Gluten Intolerance [sic] or Gluten Sensitivity this is all hard enough. We don't need to be put down for the questions we ask or ment [sic] to feel stupid or unintelligent because we don't know.....we came here BECAUSE WE DON'T [sic] KNOW!!! Even though I was not bashed by anyone (YET!) this is just terrible!

The capitalization and use of exclamation marks in Member 36's post indicates high levels of frustration and anger toward the community. As a new member, Member 36 was hoping to have a warm and welcoming experience within the community and felt that was not the response she received. Due to prior bad experiences, Member 36 has publicly announced that she is leaving

the community, possibly hoping to make the community members she interacted with feel ashamed for their behavior. This sort of heated response is the product of members being so passionate about the gluten-free lifestyle that they are blind to consequences of not respecting one another's viewpoints. With thousands of members, the likelihood of agreeing on every subject seems unlikely, but the overly zealous behavior of correcting new members, fighting about facts, or belittling another member's experience has often weakened the community.

Purposive Themes for Participating within the Community

The second section of this analysis found three purposive themes that appeared as attractive qualities that bind the online gluten-free community together as a whole. These themes answer the second research question by discussing the purposes for members to participate in the Facebook group and their continuing contributions to group discussions. The study initially questioned why community members participate when they could receive information on the gluten-free lifestyle through offline sources. This study revealed that the main reasons community members are involved with the group are for purposes of validation, friendship, and education. The following sections will illustrate these purposive themes with examples from the community.

Validation. This netnographic study discovered that one of the attractive elements of the Facebook group "Gluten Free" was the element of validation. Many of the community members live gluten free out of medical necessity and the lifestyle change can be overwhelming. During this transition, community members seek others who can empathize with their situation. Although awareness is growing, many community members are isolated from others practicing a gluten-free lifestyle and therefore turn to online communication to facilitate relationships. Members of the Facebook group are located around the globe, yet community members can

relate to each other in ways their offline social circles cannot. During times of stress, discouragement, or confusion, community members can come to the Facebook group to receive validation that their feelings are justified. This sensation of understanding is one driving factor that propels the participation within the group.

Validating Feelings. After a negative experience, community members will post on the Facebook group to vent a variety of feelings such as frustration, anxiety, or discomfort. This act could not rectify the situation and often times the situation has already passed. The sole purpose of this post is to share their feelings and receive validation or emotional comfort from the group. This is illustrated in the following example:

Member 37

Have been in hospital from Friday [*sic*]. Haven't had anything to eat in two days and get this..... I get noddle soup with gluten and the nurse is upset with me because I can't eat it. Feeling very frustrated.

Member 37 posted on the Facebook group solely to vent her frustrations about her experience in the hospital and the unaccommodating medical staff. This is one of several responses she received from her post:

Member 38

So sorry you're sick [Member 37]! Feel better soon! Don't just let it go because that is totally unacceptable! There are many CD sufferers out there and these people are supposed to be trained professionals! Ask to speak to the dietician and the head of the ward and voice your concerns regarding the lack of knowledge of the staff concerning a severe medical condition!

Member 38 responded to Member 36's need for validation by stating that the behavior of the medical staff was "unacceptable." She further validated her by explaining that this was so unacceptable that Member 37 should not let it go and encouraged her to speak to the "head of the ward" to explain what had occurred. Member 38 even wished her well and expressed her condolences for having to be in the hospital. Lastly, she attended to Member 37's feelings of being bothersome in asking for another meal by reassuring her that celiac disease is a "severe medical condition" and Member 37 is not alone in her situation. Member 38 has validated Member 37's feelings of frustration, anxiety, and self-doubt by responding with a message of confidence and comfort.

Other members of the gluten-free community have also turned to the Facebook group seeking responses of validation and advice. Commonly parents will post on the Facebook group seeking validation for issues that arise with their children. Acclimating to the gluten-free lifestyle as an adult can be difficult, but it seems to be even more difficult when members must convince and support their children in living a gluten-free lifestyle. Even if children are cooperative, it is difficult to control their varied surroundings and ensure the adults they come in contact with are well-informed. When issues arise, parents will turn to the Facebook group to seek counsel and support. The following community post is one such example:

Member 39

My daughter's school is trying to work with me, but I feel as if they don't take it serious. I had one call from the school nurse, telling me no emergency really not a big deal [*sic*], but the substitute teacher gave my daughter Cheerios ... I was not happy with that...my daughter was sick by the time she got home and home the next day...going for 504 because the school needs to learn...her teacher knows nothing about it, gave her

information and she is coming to the meeting also...they need to understand that she gets sick easy and stays sick for a while...and when she asks to go to the nurse...send her...they didn't let her go last week, and I knew she had eaten something at school the day before that made her sick... :(working on it the best I can...baby steps...I'm still learning too.

Several members of the Facebook community responded in support of Member 39's plight. The following example is one of many quick responses from the community:

Member 40

Maybe share a few of the posts from here-copy and paste and print them. They need to know that she is not asking for this because it's the newest trend. She hurts. And hurting a child is endangerment and illegal!! ;)

Member 40's response is both validating and informative. By arguing that the school staff should know this is not a request "because it's the newest trend" hints to the unstated message in Member 39's post; Member 39's school does not believe her daughter's dietary restrictions are due to medical necessity. Member 40 further validates Member 39 by agreeing and exclaiming that the school must realize that they are hurting a child, which is child endangerment. The use of strong words such as "endangerment" and "illegal" with exclamation marks validates Member 39's strong feelings of helplessness and frustration.

Validating Fears. Another type of validation stems from several fears within the community, two of the most prevalent being the fear of contamination and the fear of being excluded. Cross-contamination is the result of gluten particles being incorporated into gluten-free substances. This can occur from negligent food production, kitchen equipment being cross-utilized, and gluten being used unnecessarily. Members of the "Gluten Free" Facebook group live with the fear of uncertainty that despite being meticulously careful, they may suffer

consequences of cross-contamination. If this is to occur, they turn to other members of the community who can empathize and validate their feelings. The following is one of many examples of community members recounting stories of cross-contamination:

Member 41

I got into some gluten from a fish taco a couple of weeks ago. Explained to the waiter what I needed. Was assured. Got the plate and the tacos had breaded fish. I explained that they needed to be changed, the whole gamut. Got unbreaded shrimp instead, to accomodate [*sic*] my needs. Halfway into the first taco, I spot a piece of breaded fish mixed in. They had just pulled out the worst of it and added some shrimp. I didn't finish that one, hoping that I didn't get a piece of it and left the remaining one for my dinner companion. It took a little time to have him finish the rest of his meal and my taco, get the bill and pay, then we walked out. 20-25 minutes maybe. I never made it to the car. Projectile vomit across the parking lot 3 or 4 times. It hits me pretty quick. 3 days of water, probiotics, a headache [*sic*] from hell and a stomach that felt like someone stuck me with a hot iron.

For community members, dealing with cross-contamination is akin to dealing with being poisoned. At times community members have used the word “poisoned” in referring to accidentally consuming gluten. This word choice is due to the physical repercussions that community members experience. The following is one response to Member 41’s experience:

Member 42

You poor thing [Member 41]! If it was me I would have waited in the restaurant and given them the gift of seeing what their don't care attitude does and their patrons too! See

how they like losing customers! Grrrrr! But our problem is the ‘fad’ followers have made it hard for us with the real gluten problems, to be taken seriously!

Member 42 validates Member 41’s negative experience at the restaurant and literally grows in anger. This response strengthens Member 41 by keeping her from being a silent victim. Member 41 is able to express her anger and Member 42’s energetic response with hints of vengeance gives Member 41 an imaginative sense of vindication. Lastly, Member 42 validates Member 41 by reinforcing that her dietary needs are “real” and should be “taken seriously.” In the online gluten-free community, members are able to receive personalized messages of validation, messages unobtainable in offline sources.

Another fear most commonly mentioned among community members is that of being excluded during social situations. Food is a ritualistic part of any society and when one has dietary restrictions, this can potentially limit or hinder a person’s social interactions. The following example is a narrative of one such exclusion:

Member 43

When my daughter got married I could not eat her wedding cake, that was a biggie for me. The bakery she got her cake from had in the contract that we couldn't have a cake from anywhere else AND they didn't have gf [*sic*] cakes!!! So I made a chocolate groom's cake that I could eat, but really, it was not the same. IF I had it to do over, I would get a gf [*sic*] wedding cake from another bakery anyway.

A wedding cake is a common culinary tradition in many countries, but unfortunately most traditional cakes contain gluten. It is social passages such as this that create fear amongst community members of being isolated in social situations. Members turn to the Facebook group to validate feelings of fear or to rehash negative experiences. Validation can at times be

unidirectional and the act of expressing can be strengthening to a community member. This is portrayed in the following post:

Member 44

When we go to my GF's [girlfriend's] family's I understand that it's me that has to eat this way, not them. But sometimes (a lot) I wish they would just change that one ingredient when making their recipe. A [sic] love green bean casserole. But using mushroom soup that has gluten just won't work. I am going to start buy [sic] alternative ingredients to keep at their house so when they make their recipes they can switch without having to worry about getting the right thing or spending any extra money. Plus we make our own delicious recipes such as homemade ratatouille so they can get out of their culinary slump.

Member 44 is expressing his experience on the Facebook group because he cannot express these feelings directly to his girlfriend's family members. He does not ask a question within his post because he is not seeking a solution. For him this community is a venue to substantiate his feelings with living a gluten-free lifestyle to a safe group of individuals who will not take offense, but who will instead listen and empathize.

Friendship. Through netnographic inquiry this study discovered another attractive element for the Facebook group "Gluten Free." This form of the online gluten-free community serves as a successful venue for creating new friendships. Members reciprocate between friendship roles, as some community members turn toward the Facebook group to receive kind words from an online friend and others participate to give encouraging words.

For finding gluten-free individuals. Each member comes from a different support system and for some of the community members the online friendships established within the

community are their only sources of support for their gluten-free lifestyle. On the other hand, there are community members who are excited to join the group—despite prior support—to make new friends and learn from each other. The following is one example of a new member eager to make new friends and learn from them:

Member 45

I am new here & [*sic*] excited to learn more from you veterans of wheat? Last night my mom made the first “real” food I have eaten in a while. By that I mean, something other than the same old bland basics. It was a gluten free, dairy free meatloaf. And boy was it to die for. Will share here as soon as she gives it to me. Look forward to making new friends and finding out more about the beast that is wheat? Thanks for adding me :)

Member 44 is eager and excited to be a part of the group. She views her membership as an opportunity to connect with other members of the online gluten-free community and learn from them. Her verbiage indicates that she feels united against gluten with them as she describes gluten as the “beast that is wheat” and the older members of the community as “veterans of wheat.” Members join seeking friendship, but each seeks friendships for a different purpose. Member 45 is an example of members who join to expand their informational resources and to feel connected within the gluten-free community.

To receive support. Other members seek friendship with the online gluten-free community to receive validating support. When members of the online gluten-free community post words of discouragement, other community members will respond with words of inspiration and comfort. The sense of friendship is not wholly parallel to an offline friendship and often community members will exhibit friend-like qualities toward someone they’ve only known from online interactions within the group. Despite previous interactions, community members are

quick to come to the emotional aid of a fellow disheartened community member. The following post illustrates a response post of encouragement to a discouraged fellow community member:

Member 46

This disease will dictate A LOT in your life; but it need not DEFINE you. This is what these site [sic] are intended for, I believe -- to support those through the struggle. And people who wonder if your condition is “real” don't just exist in small towns -- I'm from the Chicago suburbs and some of the people closest to me a few years ago didn't want to help me at all and still don't believe it's real. We are your shoulder to cry on, so to speak, and before you know it, you will be supporting other newbies :)

This passage is an example of many community responses to members who express feeling dispirited about living a gluten-free lifestyle. Member 46 encourages this community member to not let the inability to consume gluten define her and to have faith in herself that she is treating real symptoms. Member 46 empathizes with this community member by expressing a portion of her own beginning story. This post also demonstrates the loving nature within the community as Member 46 states that the community is a metaphorical “shoulder to cry on” and soon this discouraged community member will be the one to give hope to the newer members of the community. Although the interaction occurred online, the components and benefits of friendship have been established.

Member 46 is not alone in her belief that the purpose of the Facebook group “Gluten Free” is to support those living a gluten-free lifestyle through online interaction. Other members have also expressed their willingness to be a friend to those in need. The following excerpt is from a community member expressing her desire to be a support system within the community:

Member 47

I would like to consider the friends I make here as sounding boards for good solutions and a shoulder to lean on when it becomes overwhelming. I would like to be that for everyone else, and to be a bit upbeat about the tribulations we encounter.

Community members like Member 47 have joined the online gluten-free community to become part of a network and establish friendships within the community. Community members have a unique ability to empathize with the plight of fellow community members. This ability is coupled with the shield of partial anonymity. If one lives in Canada, it is much easier to discuss digestive issues online with a stranger in Australia than it is with your neighbors face-to-face. The online gluten-free community differs from traditional friendships, but does provide online friendships that facilitate encouragement and understanding for the gluten-free lifestyle.

For personalized information and feedback. For members of the online gluten-free community, their online interactions may be their only source of friendship and support relating to their dietary issues. If they are recently diagnosed they will be newly learning about living on a gluten-free diet. If they are unaware of any friends or family who live a gluten-free lifestyle, their only source of information can come from offline or online texts. During moments of confusion or anxiety, an attractive solution would be to seek online assistance and build online friendships. The following examples are from community members who have expressed their gratitude and reasons for participating within the group:

Member 48

I'm so new to all this and I don't have any friends or family who are gluten free. So that's why I ask so many questions on here.

Or

Member 49

I appreciate everyone [*sic*] of you helping me through this journey and couldn't have asked for a better bunch of friends. Again, thank you.

Member 48 and Member 49 both acknowledge the security and comfort they receive through friendships within the online community. Member 48 expresses that she is a new community member and this is her only source to ask questions. Member 49 explains the process as a “journey” and how grateful she is for the friendships within the group. The online gluten-free community is a unique source of information and strength, of which Member 49 and Member 48 are both examples. Books, pamphlets, or other textual resources cannot give personalized information or emotional support in the way that the gluten-free online community can. The questions asked on the Facebook group are often in reference to a personal situation that needs to be addressed on a case-by-case basis. It's that personalized feedback and quick response that promote participation within the group and stimulate new members to join the group.

One element of a friend is someone who is supportive. The community members of the Facebook group “Gluten Free” often act as cheerleaders to one another during moments of discouragement. When community members, especially new members, feel overwhelmed by the learning curve of adhering to a gluten-free lifestyle, they will turn to the Facebook group to seek comfort. This is displayed in the following example:

Member 50

And I need [*sic*] friends to help me ive [*sic*] had learn how do thing differently but being a single mother live [*sic*] in my own home I dont [*sic*] have support or ideals I have books on how to cook gluten free. But dont [*sic*] know how to do alot [*sic*] with them. . . . So PLEASE FB friends help.

Member 49 feels overwhelmed by the task of learning to cook new recipes and learning what is safe to eat. She has purchased a gluten-free cooking book, but that did not soothe her anxiety. The best solution for her was to turn to her online friendships within the community and ask for assistance. She expresses her lack of support as a single mother and her need for friends to help her. Her request was met with a flurry of advice and encouraging comments, such as the following:

Member 51

Take it one day at a time and congratulate yourself every day for deciding to take care of yourself that day. :) it's okay to say that this sucks because it does... but it could be worse and it does get easier and you will get adjusted to it.

And

Member 52

You've been given a lot of good advice, bottom line is that you CAN do this!

Examples of friendship happen continually within the community as members attempt to uplift and support one another. With thousands of members around the globe, someone is always online to answer a question or cheer up a fellow community member. Friendships may not mirror that of offline friendships, but the attractive elements—kind, supportive, dependable—of friendship are found within the online interaction. For those lacking a support group, or those wishing to support others, the online gluten-free community serves as a platform for creating new connections.

Education. The third purposive theme that emerged within the netnography of the online gluten-free community was a desire to educate society and spread awareness, as well as educate within the community by sharing information, recipes, and upcoming events.

Educating within the community. Members of the Facebook group “Gluten Free” would often post information to help educate one another on cooking tips, medical updates, or offline events. Many of the community posts were recipes for dishes that mirrored that of traditional gluten-containing recipes. Especially during the holidays of Thanksgiving and Christmas, many members shared tips to make the holiday season enjoyable with a gluten-free menu. The quest was to make a recipe that tasted “just like normal” or one that their other family members would not notice the gluten-free ingredients. Besides recipes, members of the community would also post educational summaries with tips for those just beginning with the lifestyle or ways to prevent cross-contamination in their home. Many new community members are unaware of easy cross-contamination woes and tips for choosing products and veteran community members are often posting quick summaries of what they’ve learned over the years. This is illustrated in the following community post:

Member 52

I have learned over the years that anything you buy should say gluten free or if you call the manufacturer to see if they use gluten is another good way. Ive [sic] learned to not eat alot [sic] of packaged food. I eat more fruits and veggies with some meat. If you ever consume gluten then you need to take a probiotic to ease the pain. Gluten is used in everything so make sure it says gluten free. It takes awhile to adjust to it and you have to educate yourself alot [sic] on what you can and cannot eat. I try to stay away from grains as much as I can. I dont [sic] use Dairy [sic]. I use Coconut, Almond or Rice Milk now [sic].

Member 53 is an experienced member of the community and voluntarily shared these useful tips to aid newer members of the community. Community members that have been living a gluten-

free lifestyle for several years—before even the creation of the community—did not receive the same accommodations when they first started and feel a responsibility to not let the newer generation gluten-free individuals struggle as they did.

Members also publish new medical information to the group that others may be unaware of, such as new medical studies or news articles on living a gluten-free life. These types of community posts are an effort to educate one another on dietary ideas, safety, and new information concerning the gluten-free lifestyle. Another common method within the community was to share offline gluten-free events. Although the community consisted of members from around the globe, community members still attempted to connect on a smaller scale by reaching out to those in their offline community. This is shown in the following examples:

Member 54

I wanted to share a special event with that will benefit and educate those of you living in Toronto..... On March 6, world-renowned clinical nutritionist, Dr. Melvyn Grovit, will be speaking here in Toronto.

Member 54 understands that this post will affect a small percentage of the community, but still posts the information believing an educational opportunity is worth being shared, even if it is for a small number of people.

Members of the online gluten-free community “Gluten Free” feel that the group serves as an additional source of information. With a wide variety of community members there is a variety of community posts educating one another on several different topics pertaining to the gluten-free lifestyle. Through participation, community members can stay up-to-date on medical updates, learn a new holiday recipes, or brush up on cross-contamination best practices.

Educating outside the community. While part of the educational theme within the group rests upon educating one another, the other element of education is in outward education to the surrounding offline community. Members of the community feel it is their duty to educate those who are unaware of the gluten-free lifestyle. By spreading awareness, those who are unfamiliar with the purposes of living a gluten-free life will understand the sensitive nature of community members needing to avoid even the smallest particle of gluten. The following example illustrates a community member reminding her fellow community members to advocate for the gluten-free lifestyle:

Member 55

Each and every one of us can create awareness about the gluten free diet, coeliac disease and gluten sensitivity in our own way. By sharing information, recipes, tips about trusted restaurants, participating in charity activities, and joining support groups we can contribute to improving our opportunities. A big well done to people with these conditions and caterers who are trying to do all this and more. But if we want change, we cannot just sit back and complain between ourselves. We all have a little or alot [*sic*] to offer, even if it is educating own family and friends.

Member 55 demonstrates the responsibility community members feel to educate those around them. She reminds the community that it is everyone's duty to explain to family members and friends the details of being gluten-free. Member 55 stresses that the community members should participate in their offline communities and contribute to improving circumstances for those needing gluten-free accommodations. Members can seek to improve each others' lives online, but each community member has a personal responsibility to be proactive in improving his or her life offline through education.

The reason community members feel this responsibility to educate the outside public is to make a more gluten-free friendly world for those who have gluten-free dietary needs.

Community members have expressed this wish to make surrounding offline communities more aware of the gluten-free lifestyle, hopefully changing their practices to include gluten-free options. This desire is expressed in the following community posts:

Member 56

We have to advocate for ourselves. All of this is still too new for the current generation. But that's ok -- as long as we persevere with educating and bringing awareness in our own communities, the tide will slowly change and hopefully will be easier for people like my daughter who is celiac like me when she is in the workplace :)

Or

Member 57

I choose to remind just as a precaution. And I couldn't agree more with your philosophy - - we must educate those around us, because that is how we 'pay it forward' and help the next celiac! :)

Member 56 and Member 57 both express their desire to improve awareness for the sake of others. Member 56 reinforces that the responsibility to educate rests on the members of the gluten-free community. On a positive note, she acknowledges that perceptions of the gluten-free community are already changing slowly and this young generation can be educated for the future. Member 57 explains that educating others now is the best way to reward other members living a gluten-free lifestyle. Community members feel that the gluten-free lifestyle has caught the public's attention for a short timespan and this is their opportunity for education. They highlight that the byproduct of this public attention has made the gluten-free lifestyle easier on

several community members. These sentiments are demonstrated in the following community posts:

Member 58

This illness has caught mainstream attention for a very short time; there is still so much educating that needs to be done.

Or

Member 59

After 18 years of living with Celiac [*sic*], it has gotten easier. I do with [*sic*] the general public was more educated on it, especially food servers, but now grocery stores have sections devoted to gluten free and the labeling laws have taken a lot of guess work out of items.

Member 58 points out that recent public attention toward the gluten-free lifestyle is a short window of opportunity for educating the public. The online gluten-free community believes that education will create opportunity and better accommodations for their dietary needs. Member 58 is one example of this as she testifies that she has seen a vast change in gluten-free accommodations during the past 18 years of living gluten-free. Eating outside of her home kitchen and purchasing grocery items have been less burdensome as society has become more aware of the gluten-free existence.

Chapter 5: Summary and Conclusion

Limitations

Limitations of netnography. As with any method, there are limitations and weaknesses involved in utilizing netnography for research. One such weakness for netnography is the subjective nature of the analysis. In the words of the originator himself, Kozinets (2010, p. 60) described netnography as stemming “organically from a basis in participant-observation.” The procedure of observation was susceptible to bias and subjectivity. The thematic findings were based upon a singular researcher’s observation and therefore vulnerable to bias.

Lastly, a weakness of netnography is the inability to record all of the data. Even though the universe of this study was limited to one Facebook group, it would have been impossible to download and record all previous interactions and communications within the group. That would have involved thousands of pages of data, more than was realistically possible for a thorough analysis. Also, the group selected was only from one social media platform dedicated to the online gluten-free community. There are millions of members of the online gluten-free community and dozens of different platforms (e-mail, forums, weblogs, chat rooms, or listservs) on which they communicate. The expansive nature of the community renders them impossible to have comprehensively analyzed in one study.

Limitations of the study. The main limitation within this study was basing the data on a singular online gluten-free community. This study would have been enhanced if it was contrasted and compared to other online gluten-free communities. Furthermore, this study would have benefited by comparing and contrasting the online gluten-free group to an offline gluten-free group.

Quantitative research methods would have also enhanced the findings of this study by allowing for descriptive information pertaining to the demographics within the group. It would have been beneficial to see the correlation between demographics and elements of the member posts. Also quantitative methods such as questionnaires would have allowed for a more in-depth analysis. Lastly, the study was limited by the lack of researchers coding the data. The data was coded by one individual and would have benefited from multiple perspectives analyzing the findings.

Conclusion

Based on the findings of this study, the following four conclusions were determined. First, the findings of this study contributed to the literature on online communities by giving a detailed description of an online gluten-free community. Second, the findings of this study emphasized and contributed to the theoretical framework that initially guided it. Third, this study further solidified the method of netnography as a suitable method for the unobtrusive observation of an online community. Last, the findings of this study added to the literature of the gluten-free community and provided a thick and unique description of the community.

Literature of online communities. Academic studies rarely unveil major discoveries, but instead add a sliver of knowledge to the great body of work in academia. This study followed this pattern by adding a description of an online community. Online communities are a form of communication unknown to our academic predecessors, due to their formation following the creation of Web 2.0. This thesis offers a description of an online gluten-free community, to add to the work already completed on online communities.

The gluten-free online community is determined to be a community of interest, due to its participants' reasons and methods for communicating. The online gluten-free community does

not have offline roots that led to its creation; in fact, the participants are located in countries worldwide and would be unable to participate offline. The only common interest between community members is the shared interest in living a gluten-free lifestyle. This commonality is the binding structure that created an online community from a group of members with considerable differences in nationality, gender, and age.

This study unveiled a community with distinctive qualities and attributes of being suspicious, defensive, and passionate. The experiences acquired within the group cannot be matched by outside sources as community members continually participated for reasons of validation, friendship, and education. These findings matched those found of other studies, such as the study of cross-cultural brides (Nelson and Otnes (2005). This study found that cross-cultural brides also joined an online community of the purposes for advice and support, which purposes are closely associated to education and validation. Another similarity is that both communities created commonality through storytelling. The act of sharing personal narratives, such as those displayed in acts of validation, created a bonding effect within the community. This is similar to the findings by Zimmerman (1987) who found that the online environment made it easy for participants to share their feelings with one another.

This ease of sharing may be restrained by the medium of Facebook groups. The online gluten-free community in this study did not have the benefit of complete anonymity. While they did have partial anonymity due to their lack of physical contact and prior knowledge of one another, all members of the Facebook group were required to use their personal profile in order to join the group. This may have possibly limited the amount of disclosure since complete anonymity was not an option.

Online communities have similarities in structure and description, but the characteristics and purposes still differ widely among them. Although this thesis related closely with the study of Nelson and Otnes (2005), there are other studies of online communities that do not overlap. Kozinets (1997) netnography of *X-Files* fans displayed different reasons for participation within the group. The members of the group participated for the opportunity to discuss the spiritual and mystical elements of life. Although this group is also a community of interest, the specific purposes for participation are different from those found within the online gluten-free community.

Literature of theoretical framework. This study also contributes to the literature on uses and gratifications concerning online communities. Traditionally, uses and gratifications theory has been applied to traditional communications mediums such as television. This study has expanded the uses and gratifications theory literature by applying it to online communities.

This study revealed that although uses and gratifications of traditional media and online communities have similarities, there are variations. Individuals can derive repeated uses or gratifications from traditional media because of its static nature; online communities are not constant in nature as they are composed of a network of people. Patterns of uses and gratifications emerge over time within online communities, but the outcome of an individual's experience is not guaranteed. For example, within the online gluten-free community one individual may have several strong gratifications of friendship, whereas another community member that may have participated in a heated discussion could have felt belittled by the community, therefore producing the opposite sought gratification. Online communities are living organisms, with their own distinct characteristics and purposes. Its duration as a community is dependent upon the positive characteristics and purposes outweighing the negative.

James Carey's views about the relationships between communication and culture aided this study in its analysis of the online gluten-free community. After all, this study analyzed a culture that is composed purely by its communications. By analyzing the community's communications for its patterns as well as for its content, this study uncovered the ritualistic patterns that characterized the community. An example of this is through the cycle of validation displayed within the community. Members would post an experience, without asking questions or seeking advice, purely to express their story. The content of the story often would not change the outcome. The members would reciprocate in acts of validation and comfort. Some members would match the original posters' story with a personal narrative of their own. As an automatic and almost expected response, this community would react to a community member's needs. Carey's theory aids our understanding of this act, that the phenomenon is not only within the information transmitted but also within the ritualistic response by the community.

Strengthening the method of netnography. This study is evidence of the valuable nature of netnography as a method for communications studies. Just as other studies have documented (Bowler, 2010; Langer & Beckman, 2005), netnography is a beneficial method for studying online communities and cultures. The unobtrusive nature of the method allowed the researcher to observe the communications within the online gluten-free community without influencing the conversations. By removing the researcher from the study, this thesis was able to gain pure data of unaffected communication. Also, by removing the researcher from the community, the researcher had a more objective view of the community, free from empathetic ties and friendships.

Netnography also has the added benefit of perfect transcription. Unlike fieldnotes or interview notes, netnography allows online communications to be copied verbatim. During the study, all communication analyzed was copied directly from the community forum. This removed researcher error and transcription issues for attaining suitable data. As a researcher, it is vital that the communication under study is not transformed due to errors in the instrumentation or documentation. Due to the merits of netnography, this thesis can be confident in the quality of its data.

Thick description. This analysis of the online gluten-free community unveiled the intricate workings within the community and illuminated the perspectives of members of the online gluten-free community. In addition to describing the characteristics of the content of communications in the community, and the members' purposes for participating, this study gave a thick description of subtler qualities of the online gluten-free community and explanations for behaviors within the community. For example, similar to that found in other studies of the gluten-free lifestyle (Lee, Ag, Zivin & Green, 2007; Lee & Newman, 2003), this study found that members of the gluten-free community experienced hardships in living the gluten-free lifestyle. Often community members complained about the expensive nature of gluten-free products and the difficulty of eating outside their home kitchen. Aside from the expense of gluten-free products, community members often debated about the nutritional quality of the products. Another main complaint was the taste of gluten-free products being grainy, dry, or crumbly. This unusual taste of gluten-free products made family adaptation to the diet more difficult.

Another aspect of the culture of this community that arises from this thick description is its often negative dynamic and tone. The first two pairs of characteristics the study

identified about the community were defensiveness and suspicion, and frustration and distrust. The negativity that exudes from this community could possibly worsen the situation for newly diagnosed individuals who already feel overwhelmed at the prospect of changing their diets. The extreme and contradictory opinions on information about the gluten-free diet could be unsettling and confusing to newer members during their adjustment to the gluten-free lifestyle.

Some of the negativity in the group dynamic identified in the communications analyzed in this study arose from those members who seemed focused more on themselves than the group as a whole. There are examples of community members giving validation, but in between the charitable member contributions is a host of community members looking for any excuse to vent their lifestyle woes, or to gain something for themselves, whether it be pity, validation, praise or emotional support. For example, at times, one community member would post about a personal narrative and another community member would not acknowledge their post, but instead would write his or her own personal narrative that seemed worse than the experience of the original poster. This sometimes appeared to be a passive aggressive maneuver meant to assert that their problems were worse and they should be the one receiving support.

Another negative issue within the group is the community discord that often erupts during conversations. The subjects of GMOs, gluten-containing foods, or eating sugar, are guaranteed to lead to a volatile stream of communication. Community members would use the Caps Lock key to indicate yelling, and would yell at specific members within the community. At times this would lead to members threatening to leave the group, and other community members insisting that they should do so. Many of the communications in this online gluten-

free community suggest that it is a group that contains highly opinionated and sensitive individuals, and that overall it is not a cohesive or loyal community.

As discussed earlier, this study was limited by the focus on a singular gluten-free Facebook group. The findings of this study may differ from studies of other online gluten-free communities. Another group may have more positive characteristics and may exhibit more cohesive and loyal qualities.

Despite the negative cultural characteristics identified, this study also finds that many individuals find benefits in participating in this online community. For many, the aspects of education, validation, and friendship seem to outweigh any negative byproducts of group participation.

As with many groups, the convergence of such a diverse population is sure to present confrontations from time to time. The dynamics and tone of this group should be compared to other online communities to see if there is anything unusual here, or if what has been identified as negativity in this online gluten-free community is par for the course in online communities in general.

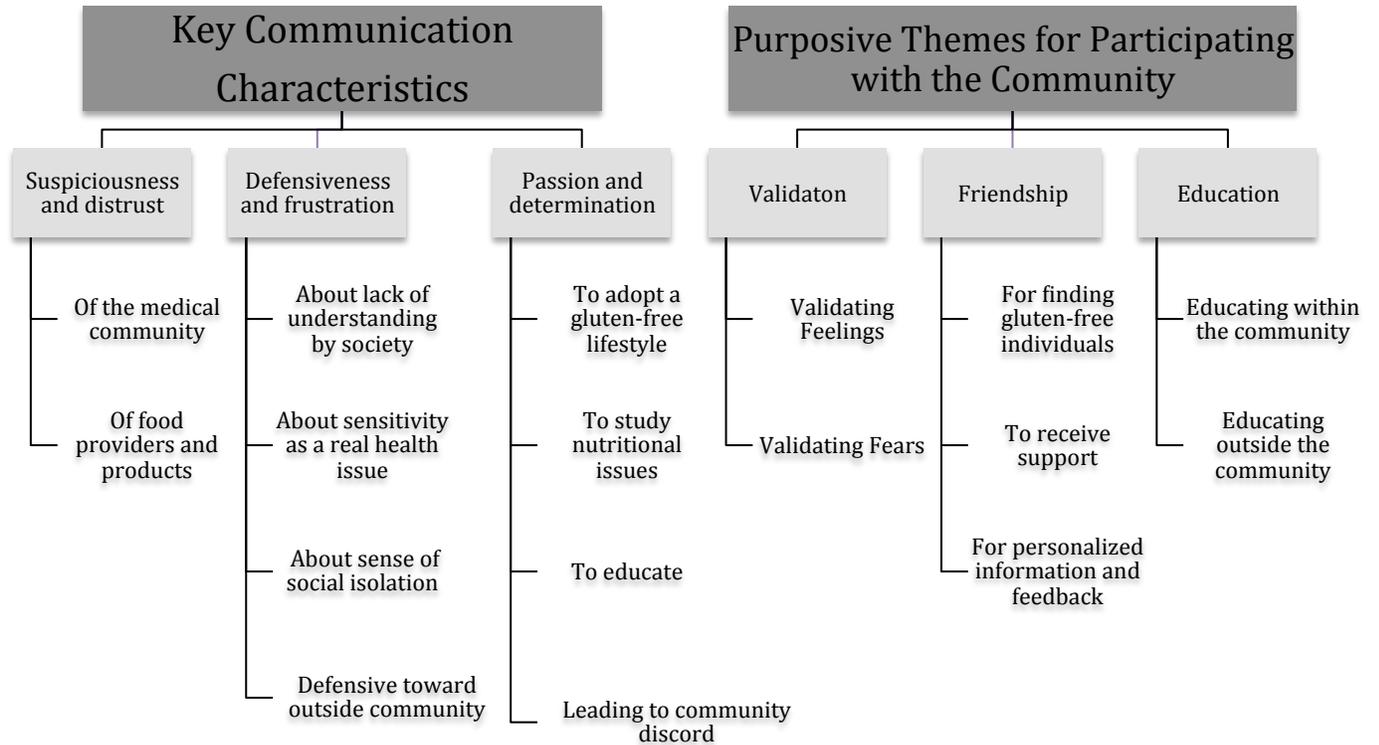
Future Research

This netnography of an online gluten-free community illuminated a currently unstudied culture. Each online community holds its own set of cultural practices and purposes for its members to participate. Although it was on a small scope of one Facebook group, this study allowed for the brief examination of the inner-workings of an online gluten-free community. The online gluten-free community is more than a simple recipe exchange. It is a unique culture, with key characteristics and purposes that attract members to interact online.

This study was the first to examine the social aspects and communication within the online gluten-free community, but there is a vast field of research left to be conducted on the community. Future research could be conducted utilizing different mediums for study such as gluten-free food blogs, forum threads, or another social media network community. Future studies could also analyze the relation to other online communities, especially within the field of nutrition or other food related lifestyles. It would also be interesting to see the relation between online gluten-free communities and offline gluten-free communities to see if their communication styles and contents differ.

Additionally, it would be interesting to study if particular online communities attract certain types of individuals. Future studies should also include an analysis of demographics within online communities to discover any patterns relating to the communication. Lastly, future studies should combine qualitative and quantitative methods to create a broader description of the online gluten-free community as a whole.

Figure 1. Summary of thematic findings. This figure summarizes the thematic findings of this thesis—the key characteristic themes and purposive themes of the online gluten-free community.



References

- AFPRELAXNEWS. (2011). *Restaurants adding more gluten-free, heart-friendly menu items report*. Retrieved from <http://www.nydailynews.com/life-style/health/restaurants-adding-gluten-free-heart-friendly-menu-items-report-article-1.990255>.
- Alavi, S., Ahuja, V., & Medury, Y. (2010). Building participation, reciprocity and trust: Netnography of an online community of APPLE using regression analysis for prediction. *Apeejay Business Review*, 11(1–2), 82–96.
- Alaedini, A., & Green, P. H. (2005). Narrative review: celiac disease: understanding a complex autoimmune disorder. *Annals of internal medicine*, 142(4), 289-298.
- Armstrong, A., & Hagel, J. (2000). The real value of online communities. *Knowledge and Communities*, 85–95.
- Arnould, E. J., & Wallendorf, M. (1994). Market-oriented ethnography: Interpretation building and marketing strategy formulation. *Journal of Marketing Research*, 484–504.
- Bagozzi, R. P., & Dholakia, U. M. (2002). Intentional social action in virtual communities. *Journal of Interactive Marketing*, 16(2), 2–21.
- Bauer, H. (2013, March 15). *Gluten-free: Hot new trend or here to stay?* Retrieved from http://www.huffingtonpost.com/heather-bauer-rd-cdn/gluten-free-diet_b_3054841.html.
- Bender, J. L., Jimenez-Marroquin, M., & Jadad, A. R. (2011). Seeking support on Facebook: A content analysis of breast cancer groups. *Journal of Medical Internet Research*, 13(1).
- Blanchard, A., & Horan, T. (1998). Virtual communities and social capital. *Social Science Computer Review*, 16(3), 293-307.
- Bowler, G. (2010). Netnography: A method specifically designed to study cultures and communities online. *The Qualitative Report*, 15(5), 1270–1275.

- Brennan, P., Fink, S., Street, R., Gold, W., & Manning, T. (1997). Health promotion, social support, and computer networks. *Health Promotion and Interactive Technology: Theoretical Applications and Future Directions*, 157-169.
- Brown, S., Kozinets, R. V., & Sherry, Jr., J. F. (2003). Teaching old brands new tricks: Retro branding and the revival of brand meaning. *Journal of Marketing*, 19–33.
- Busch, P., Heinonen, T., & Lahti, P. (2007). Heisenberg's uncertainty principle. *Physics Reports*, 452(6), 155–176.
- Cairns, K., Johnston, J., & Baumann, S. (2010). Caring about food doing gender in the foodie kitchen. *Gender & Society*, 24(5), 591–615.
- Cantril, H. (1942). Professor quiz: A gratification study. In P. F. Lazarsfeld and Frank Stanton (eds.), *Radio Research 1941*. New York: Duell, Sloan and Pearce.
- Carey, J. W. (1989). *Communication as culture: Essays on media and society*. Psychology Press.
- Carey, J. W. (2002). Preface. *Journal of Media Religion*, 1(1), 1–3.
- Celiac.com. (1995). *Celiac disease and gluten-free forum*. Retrieved from <http://www.celiac.com/gluten-free/>.
- Celiac disease facts & figures. (1995). *Welcome of celiac central*. Retrieved from <http://www.celiaccentral.org/celiac-disease/facts-and-figures/>.
- Chamberlain, M. A. (1994). New technologies in health communication progress or panacea? *American Behavioral Scientist*, 38(2), 271–284.
- Chan, K. W., & Li, S. Y. (2010). Understanding consumer-to-consumer interactions in virtual communities: The salience of reciprocity. *Journal of Business Research*, 63(9), 1033–1040.
- Charles, A. (2010, October 7). *Facebook groups to offer users more control*. Retrieved from <http://www.theguardian.com/technology/2010/oct/07/facebook-groups>.

- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3–21.
- Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage publications.
- Cronkhite, G. (1986). On the focus, scope, and coherence of the study of human symbolic activity. *Quarterly Journal of Speech*, 72(3), 231–246.
- Durand, F. (2011). *10 inspiring blogs for gluten-free food & cooking*. Retrieved from <http://www.thekitchn.com/10-inspiring-blogs-for-glutenf-137359>.
- Elliott, R.N., Jankel-Elliott, N. (2003). Using ethnography in strategic consumer research. *Qualitative Market Research: An International Journal*, 6, 215–223.
- Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230.
- Fabiani, E., Taccari, L. M., Rättsch, I., Di Giuseppe, S., Valentino Coppa, G., & Catassi, C. (2000). Compliance with gluten-free diet in adolescents with screening-detected celiac disease: A five-year follow-up study. *The Journal of Pediatrics*, 136(6), 841–843.
- Falk, A., & Fischbacher, U. (2006). A theory of reciprocity. *Games and Economic Behavior*, 54(2), 293–315.
- Fasano, A., Berti, I., Gerarduzzi, T., Not, T., Colletti, R.B., Drago, S., . . . Horvath, K. (2003) Prevalence of coeliac disease in at-risk and not-at-risk groups in the United States: A large multi-center study. *Archival of Internal Medicine*. 163, 286–292.
- Fasano, A., & Catassi, C. (2001). Current approaches to diagnosis and treatment of celiac disease: An evolving spectrum. *Gastroenterology*, 120(3), 636–651.

- Flavián, C., & Guinaliú, M. (2005). The influence of virtual communities on distribution strategies in the Internet. *International Journal of Retail & Distribution Management*, 33(6), 405–425.
- Food for thought. (2013). *Is gluten-free eating a trend worth noting?* Retrieved December 19, 2013, from <https://www.npd.com/perspectives/food-for-thought/gluten-free-2012.html>.
- Fühlau, I. (1982). Die sprachlosigkeit der inhaltsanalyse. *Linguistische Bemerkungen Zu Einer Sozialwissenschaftlichen Methode*, Gunter Narr Verlag, Tübingen.
- Ganley, D., & Lampe, C. (2009). The ties that bind: Social network principles in online communities. *Decision Support Systems*, 47(3), 266–274.
- Garland, W. A. (2009). *Blogging out of debt: An observational netnography*. Retrieved from ProQuest Dissertations and Theses, (305181447)
- Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social problems*, 12(4), 436–445.
- Gluten free registry. (2007). Retrieved from <http://www.glutenfreeregistry.com/about-us.jsp>.
- Gluten free society. (2010). Retrieved from <http://www.glutenfreesociety.org/forum/>.
- Glesne, C. (2006). *Becoming qualitative researchers: An introduction* (3rd ed.). Boston: Pearson.
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. (Vol. 5019). Basic Books.
- Glaser, B. G., & Strauss, A. L. (2009). *The discovery of grounded theory: Strategies for qualitative research*. Transaction Publishers.
- Gordon, R.S., Stephens, M. Building a community: Create your own social network. *Computers in Library 2007; November/December*.
- Geller, M. (2013, December 4). *Celiac disease foundation*. Retrieved from <http://celiac.org/blog/2013/12/04/marilyns-message-december-2013/>.

- Gluten free is not a scam. (2014). Retrieved from <http://www.celiacinorlando.com/tag/jimmy-kimmel-rachael-ray-gluten/>
- Groups. (2014) Facebook. Retrieved from <https://www.facebook.com/about/groups>.
- Gundersen, K. (2012). *Www. youarewhatyoueat.com: The religious nature of healthy eating blogs*. *Colgate Academic Review*, 7(1), 14.
- Hagel, J. Armstrong. A. (1997). Net Gain: Expanding Markets through Virtual Communities,
- Heidegger, M. (1977). Basic writings: from Being and time (1927) to The task of thinking (1964).
- Hines, C. (2013). *Gluten-free faces*. Retrieved from <http://www.glutenfreefaces.com/forum>.
- Holmes, G., Prior, P., Lane, M., Pope, D., & Allan, R. (1989). Malignancy in coeliac disease-- effect of a gluten free diet. *Gut*, 30(3), 333–338.
- Holmes, G., Stokes, P., Sorahan, T., Prior, P., Waterhouse, J., & Cooke, W. (1976). Coeliac disease, gluten-free diet, and malignancy. *Gut*, 17(8), 612–619.
- Howell, W. M., Leung, S. T., Jones, D. B., Nakshabendi, I., Hall, M. A., Lanchbury, J. S., . . .
Wright, D. H. (1995). HLA-DRB,-DQA, and-DQB polymorphism in celiac disease and enteropathy-associated T-cell lymphoma: Common features and additional risk factors for malignancy. *Human immunology*, 43(1), 29–37.
- Huberman, B., Romero, D., & Wu, F. (2008). Social networks that matter: Twitter under the microscope.
- Industry programs. (2014.) *Gluten intolerance group*. Retrieved from <https://www.gluten.net/programs>.
- Katz, E. (1959). Mass communications research and the study of popular culture: An editorial note on a possible future for this journal. *Departmental Papers (ASC)*, 165.

- Katz, E., & Foulkes, D. (1962). On the use of the mass media as “escape”: Clarification of a concept. *Public Opinion Quarterly*, 26(3), 377–388.
- Katz, E., Haas, H., & Gurevitch, M. (1973). On the use of the mass media for important things. *American Sociological Review*, 164–181.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly*, 37(4), 509–523.
- Kavanaugh, A. L., Reese, D. D., Carroll, J. M., & Rosson, M. B. (2005). Weak ties in networked communities. *The Information Society*, 21(2), 119–131.
- Key facts. (2013). Facebook Newsroom. Retrieved December 19, 2013, from <http://newsroom.fb.com/Key-Facts>.
- Kozinets, R. V., 1964. (2010). In Robert V. Kozinets. (Ed.), *Netnography: Doing ethnographic research online*, London: Thousand Oaks, Calif.: SAGE.
- Kozinets, R. V. (1999). E-tribalized marketing? The strategic implications of virtual communities of consumption. *European Management Journal*, 17(3), 252–264.
- Kozinets, R. V. (1997). “I want to believe”: A netnography of the X-philes' subculture of consumption. *Advances in Consumer Research*, xxiv(24), 470–475.
- Kozinets, R. V., & Handelman, J. (1998). Ensouling consumption: A netnographic exploration of the meaning of boycotting behavior. *Advances in Consumer Research*, 25(1), 475–480.
- Kozinets, R. V., & Handelman, J. M. (2004). Adversaries of consumption: Consumer movements, activism, and ideology. *Journal of Consumer Research*, 31(3), 691–704.
- Kozinets, R. V. (2002). The field behind the screen: Using netnography for marketing research in online communities. *Journal of Marketing Research*, 39, 61.

- Kozinets, R. V., 1964. (2010). In Robert V. Kozinets. (Ed.), *Netnography: Doing ethnographic research online* London: Thousand Oaks, Calif.: Sage Publications.
- Langer, R., & Beckman, S. C. (2005). Sensitive research topics: Netnography revisited. *Qualitative Market Research: An International Journal*, 8(2), 189–203.
- Lee, A., & Newman, J. M. (2003). Celiac diet: Its impact on quality of life. *Journal of the American Dietetic Association*, 103(11), 1533-1535.
- Lee, A., Ng, D., Zivin, J., & Green, P. (2007). Economic burden of a gluten-free diet. *Journal of Human Nutrition and Dietetics*, 20(5), 423-430.
- Levy, S. J. (1999). Symbols for sale. Reprinted in: *Brands, Consumers, Symbols & Research*, 203–212.
- Lin, C. A. (1996). Standpoint: Looking back: The contribution of Blumler and Katz's uses of mass communication to communication research. *Journal Of Broadcasting & Electronic Media*, 40(4), 574.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalist inquiry*. Beverly Hills, CA: Sage Publications.
- Lynch, M. (2010). Healthy habits or damaging diets: An exploratory study of a food blogging community. *Ecology of Food and Nutrition*, 49(4), 316–335.
- Marlow, C. (2009, December 16). *How diverse is Facebook?* Facebook. Retrieved from http://www.facebook.com/note.php?note_id=205925658858.
- McQuail, D. (1979). The uses and gratification approach: Past, troubles, and future. *Massacommunicatie*, 7(3), 73–90.
- McQuail, D. (1984). With the benefit of hindsight: Reflections on uses and gratifications research. *Critical Studies in Mass Communication*, 1(2), 177.

Media information. (2014). *Gluten intolerance group*. Retrieved from

<https://www.gluten.net/about/media-kit>.

Mkono, M. (2011). The othering of food in touristic eatertainment: A netnography. *Tourist Studies, 11*, 253–270.

Muniz Jr, A. M., & O’guinn, T. C. (2001). Brand community. *Journal of Consumer Research, 27*(4), 412–432.

Murray, J. A., Dyke, C. V., Plevak, M. F., Dierkhising, R. A., Zinsmeister, A. R., & Melton, L. J. (2003). Trends in the identification and clinical features of celiac disease in a North American community, 1950–2001. *Clinical Gastroenterology and Hepatology, 1*(1), 19–27.

Mustalahti, K., Lohiniemi, S., Collin, P., Vuolteenaho, N., Laippala, P., & Maki, M. (2002). Gluten-free diet and quality of life in patients with screen-detected celiac disease. *Effective clinical practice, 5*(3), 105–113.

Nelson, M. R., & Otnes, C. C. (2005). Exploring cross-cultural ambivalence: A netnography of intercultural wedding message boards. *Journal of Business Research, 58*(1), 89–95.
doi:[http://dx.doi.org.erl.lib.byu.edu/10.1016/S0148-2963\(02\)00477-0](http://dx.doi.org.erl.lib.byu.edu/10.1016/S0148-2963(02)00477-0).

Park, H., & Cho, H. (2012). Social network online communities: Information sources for apparel shopping. *Journal of Consumer Marketing, 29*(6), 400–411.

Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology & Behavior, 12*(6), 729–733.

Poston, B. (2009). Maslow’s hierarchy of needs. *Surgical Technologist, 34*8.

Preece, J. (2001). Designing usability, supporting sociability: Questions participants ask about online communities. *Human-Computer Interaction INTERACT, 1*, 3–12.

- Preece, J., & Maloney-Krichmar, D. (2003). Online communities: Focusing on sociability and usability. *Handbook of Human-Computer Interaction*, 596–620.
- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *Cyberpsychology & Behavior*, 11(2), 169–174.
- Rheingold, H. (1996). A slice of my life in my virtual community. *High Noon on the Electronic Frontier: Conceptual Issues in Cyberspace*, 413–436.
- Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Basic Books.
- Rubin, A. M., & Windahl, S. (1986). The uses and dependency model of mass communication. *Critical Studies in Media Communication*, 3(2), 184–199.
- Rubin, A. M., & Windahl, S. (1986). The uses and dependency model of mass communication. *Critical Studies in Mass Communication*, 3(2), 184.
- Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, 3(1), 3–37.
- Sandlin, J. A. (2007). Netnography as a consumer education research tool. *International Journal of Consumer Studies*, 31(3), 288-294. doi:10.1111/j.1470-6431.2006.00550.x
- Schultz, T. (2000). Mass media and the concept of interactivity: An exploratory study of online forums and reader email. *Media, Culture & Society*, 22(2), 205–221.
- Sherry, J. L., Lucas, K., Greenberg, B. S., & Lachlan, K. (2006). Video game uses and gratifications as predictors of use and game preference. *Playing Video Games: Motives, Responses, and Consequences*, 213–224.

- Sherry, J. L., Lucas, K., Greenberg, B. S., & Lachlan, K. (2006). Video game uses and gratifications as predictors of use and game preference. *Playing Video Games: Motives, Responses, and Consequences*, 213–224.
- Simpson, L. S. (2006). The value in combining netnography with traditional research techniques. *Enhancing Knowledge Development in Marketing*, 193.
- Suthivarakom, G. (2011). A brief history of food blogs. Retrieved from <http://www.saveur.com/article/Kitchen/A-Brief-Food-Blog-Timeline>.
- Thompson, T. (2000). Folate, iron, and dietary fiber contents of the gluten-free diet. *Journal of the American Dietetic Association*, 100(11), 1389-1396.
- Top sites. (1996.) Alexa. Retrieved from <http://www.alexa.com/topsites>.
- Jenkins, H., & Tulloch, J. (1995). Beyond the Star Trek Phenomenon: Reconceptualizing the Science Fiction Audience. *Science Fiction Audiences: Watching Doctor Who and Star Trek*, 3-24.
- Van Herten, A. (2010). CrackBerry.com: The role of superusers in a virtual brand community. Retrieved from ProQuest Dissertations and Theses, (89225024)
- Watson, E. (2013, October 24). Gluten-free 2.0: Where is the gluten-free trend going next? Food navigator-usa.com. Retrieved from <http://www.foodnavigator-usa.com/Markets/Gluten-free-2.0-Where-is-the-gluten-free-trend-going-next>.
- Wegmans. (2010). *Shopping for a gluten-free diet*. Retrieved from <http://www.wegmans.com/webapp/wcs/stores/servlet/ProductDisplay?productId=715968&storeId=10052&langId=-1>.

- Williams, F., Phillips, A. F., & Lum, P. (1985). Gratifications associated with new communication technologies. *Media Gratifications Research: Current Perspectives*, 241–252.
- Williams, F., Rice, R. E., & Rogers, E. M. (1988). *Research methods and the new media*. Simon and Schuster.
- Woolley, J. K., Limperos, A. M., & Oliver, M. B. (2010). The 2008 presidential election, 2.0: A content analysis of user-generated political Facebook groups. *Mass Communication and Society*, 13(5), 631–652.
- Zimmerman, D. P. (1987). Effects of computer conferencing on the language use of emotionally disturbed adolescents. *Behavior Research Methods, Instruments, & Computers*, 19(2), 224–230.