

BLOGGERS AS CITIZEN JOURNALISTS: THE 2012 PINK SLIME INCIDENT

A Thesis

by

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ABSTRACT

People can instantly access the Internet, and free publishing software available to users provides opportunities to create and share content that can affect not only the U.S. food system but also consumer perceptions about ground beef. In the dynamic environment of the Internet it is increasingly important to understand the information about the U.S. food system and, more specifically, ground beef.

The purpose of this study was to examine the 2012 pink slime incident using qualitative analysis to understand what bloggers said about the food issue. Pink slime is a nickname for the beef byproduct labeled lean finely textured beef (LFTB) by the beef industry in the early 1990s. LFTB is beef that has been separated from fat and added to ground beef to make lean affordable beef blends. News reports questioning the safety and quality of LFTB began in March 2012.

A qualitative content analysis was performed on 44 blogs that mentioned the pink slime incident between March 1, 2012 and April 30, 2012. Google blogs, a feature of Google, was used to collect the sample by searching for blogs that referenced pink slime or LFTB. A data-gathering guide and a reflexive journal were used to record data and to chronicle the research process. Results showed bloggers positively and negatively framed the beef product, and the primary issues of concern were welfare, consequence, expertise, and conspiracy.

DEDICATION

I dedicate this thesis to U.S. agriculture and the women, men, and children producing food and fiber for me and other consumers. Furthermore, this dedication describes my “reflexivity” (Merriam, 2009, p. 219). Merriam (2009) recommended researchers conducting qualitative research “explain their biases, experiences, worldview, and theoretical orientation to the study at hand” (p. 219). Reflexivity establishes the credibility of research and maintains the integrity of researchers (Merriam, 2009).

Every day I walk the aisles of grocery stores, read food labels, and look at items in people’s carts. Every day I buy, prepare, cook, and eat food. Every day I listen to people discuss food; I watch video clips and movies about food; and, I read online discussions about food. From these activities, I have learned that the U.S. food system is awesome.

The U.S. food system comprises what I believe is a fair, efficient, and sustainable food system. The food system thrives because it provides choices for consumers. For example, whether consumers morally object to eating meat or whether they morally approve of eating meat—different types of food are available for the dietary lifestyles and personal values of consumers. We are fortunate to live in a country where food is an afterthought to myriad self-interests.

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Without the University Writing Center this research study would have remained scrambled thoughts and disjointed notes.

The Rebel Draft House in Northgate during Happy Hour provided a place to sort my wits. I appreciate their not kicking me out after hours and hours next to a window, papers strewn on tables and books on chairs, watching people on bikes blow through stop signs. I mulled over sometimes absurd and necessary ideas.

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CHAPTER I

INTRODUCTION

This study is about food. Specifically, this study highlights the 2012 pink slime incident presented by the American media as a controversial issue involving ground beef. News headlines about pink slime not only reached people through print and television but also through the Internet. Because the Internet is a space where people can create and share information about anything, information shared by bloggers who discussed the pink slime incident is the focus of this study. A qualitative analysis was performed to examine how bloggers described pink slime or lean finely textured beef (LFTB). Bloggers created and shared information about pink slime or LFTB, as did major news agencies. Three research questions and agenda-setting theory guided the study.

Background

In 2002 a United States Department of Agriculture (USDA) microbiologist, Gerald Zirnstein, visited a U.S. beef-processing plant. Zirnstein investigated the processing plant after 13 boxes of tainted lean finely textured beef (LFTB) were sent to a customer. After visiting the plant, Zirnstein wrote an email to his colleagues describing the beef product not as LFTB but as pink slime. Zirnstein opined that the LFTB differed from ground beef and therefore ground beef containing LFTB should be labeled to inform consumers about the contents of the ground beef produced by the company and other companies making a similar product (Desk, 2012).

LFTB was developed by Beef Products Incorporated (BPI). BPI founder Eldon Roth pioneered the production method that separates beef trimmings from fat to create LFTB. In 1993, the USDA approved BPI's process of separating lean beef from fatty, boneless trimmings. The trimmings or trim comprises small cuts of beef and fat remaining after large cuts such as steaks and roasts have been made. To make LFTB, the trim is placed in a centrifuge and heated; the combination of heat and force separate the beef from the fat. After separation, beef ranging from 94% to 97% lean (or 3% to 6% fat) is treated with ammonia to raise the pH levels in the beef and consequently minimize the risks of pathogens *E. coli* O157:H7 and *Salmonella*. In 2001, the U.S. Food and Drug Administration and the USDA approved BPI's pH Enhancement System (Desk, 2012). Once deemed to be free of potential safety and health risks, LFTB enters the food system as an ingredient in low fat ground beef (Beef Products Inc., 2013a). The Making Lean Beef section on BPI's website describes the use of ammonia in their beef processing:

As a part of our commitment to provide the safest lean beef possible, our research drove us to create the pH enhancement process, which relies upon slightly increasing the level of ammonium hydroxide already present in beef in order to elevate its pH. Ammonium hydroxide is naturally found in beef, other proteins, and virtually all foods. It is widely used in the processing of numerous foods, such as baked goods, cheeses, gelatins, chocolate, caramels, and puddings. One result of this food safety system is the dramatic reduction in the number of

potential pathogens that may be present in foods, such as E.coli O157:H7. (Beef Products Inc., 2013b, para. 1)

Regarding the safety and quality of meat, the USDA emphasized that “American consumers can be confident that the Food Safety and Inspection Service (FSIS), the public health agency in the USDA, ensures that meat and poultry products are safe, wholesome, and correctly labeled and packaged” (Food Safety and Inspection Services, 2012, para. 2). A BPI employee (Travis Derochie, personal communication, May 22, 2013) said LFTB was 100% beef, and Fielding, Friedland, Gabbett, Johnston, and Keefe (2012) reported that consumers had eaten LFTB since the early 1990s.

Six years after Zirstein coined the term pink slime, media and consumers began wondering about ground beef they had been eating for more than 20 years (Desk, 2012). *Food, Inc.*, nominated in 2008 for an Academy Award, showed the process of making LFTB at a Nebraska beef-processing plant. On June 12, 2008, the *Washington Post* reported an estimated 75% of hamburger patties in the U.S. contain LFTB (Fielding et al., 2012). On December 30, 2009, *New York Times* published a Pulitzer-Prize winning story about BPI’s beef-processing. Referring to LFTB as pink slime, the *New York Times* story questioned the safety of the processing method in decreasing the chances of contracting *E. coli* O157:H7 and *Salmonella* (Moss, 2009). Celebrity chef Jamie Oliver, in 2011 during an episode of his television show *Food Revolution*, poured liquid ammonia into a tub filled with LFTB, claiming LFTB was unsafe and unhealthy; videos of Oliver’s demonstration have received more than 1.7 million views on YouTube (YouTube, 2013).

Then on March 5, 2012, *The Daily* reported the USDA planned to buy seven million pounds of LFTB for the national school lunch program (Fielding et al., 2012). A day later, Houston-based food blogger Bettina Elias Siegel started an online petition asking the USDA to ban the beef product from the federal school lunch program; when the petition closed, it had 258, 632 signatures (Fielding et al., 2012). Two days later, March 7, 2012, *ABC News* reported 70% of ground beef at supermarkets contained pink slime (Fielding et al., 2012).

LeVaux (2012) summarized what happened: “The hamburger filler made from processed beef trimmings has been in use for decades, but now, thanks to social media-fueled campaigns and traditional media coverage from Fox News [sic] to MSNBC [sic], we're suddenly terrified of the stuff” (para. 1). Greene (2012) added this:

The depiction of lean finely textured beef in the media as ‘pink slime’ raised the product’s ‘yuck’ factor and implied that there were food safety issues with LFTB, mainly because ammonium gas is used as an antimicrobial intervention in the production of LFTB. (para. 1)

The outcries from media, celebrities, and consumers about pink slime affected livelihoods of the employees producing the beef product: “The explosion in media coverage seemed to come out of nowhere . . . No recall, no lawsuit, and the three [McDonalds, Burger King, Taco Bell] quick-service [fast food] restaurants had dropped BPI as a supplier a full two months earlier” (Fielding et al., 2012, pp. 21–22). BPI director of food-quality assurance Craig Letch said “the company lost 80 percent of its business in 28 days” (Associated Press, 2012, para. 10).

Not only did the incident affect BPI's business, it spilled into the courtroom when BPI filed a defamation lawsuit against *ABC News* claiming the news agency's allegations conveyed LFTB as "unhealthy, fraudulently labeled and unsafe," (Bottemiller, 2012, para. 2) and caused "\$400 million in lost profit, 700 layoffs, and the closing of three of the company's four plants" (Bottemiller, 2012, para. 3). BPI claimed *ABC News* discredited LFTB and "misled consumers into believing that the product was unsafe, even though it had been approved for human consumption by the U.S. Department of Agriculture" (Lopez, 2012, para. 3). Furthermore, BPI contended *ABC News* had lower ratings than *CBS News* for 25- to 54-year-olds before the network began its coverage of pink slime but after moved ahead of CBS in ratings (Engber, 2012). When *ABC News* began its coverage, BPI was selling five million pounds of LFTB per week but, as pink slime swept through the news, production dropped to 1.6 million pounds (Engber, 2012). A weekly profit of \$2.3 million had turned into a \$583,000 weekly loss (Engber, 2012).

Problem Statement

The Internet is a source of information where consumers search and obtain information about food safety and quality. The media coverage of the pink slime created a month-long flurry of sensationalism, during which time consumers may have encountered many sources of information, including television, print, and Internet news reports. The media coverage of pink slime, and the ensuing public reaction to LFTB, gained traction in the U.S. after various media questioned the safety and quality the beef product. Beginning in March 2012, media and consumers questioned the safety and

quality of LFTB (Fielding et al., 2012). Between March 5th and March 10th, expressions of opinions about LFTB on Twitter and Facebook increased from 490 to 8,429 (Fielding et al., 2012). After the reports of pink slime by the media coverage, BPI suffered economic consequences, beef employees lost their jobs, the USDA changed its school lunch policy, and grocery stores and retailers reconsidered selling beef products containing LFTB. Furthermore, after the initial outcry, BPI created a website (www.beefisbeef.com) where information about their beef products and beef-processing methods was and remains available.

Theoretical Framework

The theoretical framework for this study is based on McCombs and Shaw's (1972) agenda-setting theory. In Griffin's (2012) *A First Look at Communication Theory*, communication scholar Burgoon described a theory as "set of systematic hunches about the way things operate" (p. 2). In other words, theories and theoretical frameworks are tools that help people create meaning and make sense of things in life.

Communication scholars McCombs and Shaw (1972) introduced agenda-setting theory and affected the nature of mass media studies research. Agenda-setting theory is a lens through which various media are analyzed to make sense of things in life: The theory is a set of hunches that deals with mass media and the construction and deconstruction of public opinion.

In choosing and displaying news, editors, newsroom staff, and broadcasters play an important part in shaping reality and opinion. The public learns not only about a given issue but also how much importance to attach to that issue based on the amount of

information in a news story and its position. For example, in reflecting what candidates are saying during a political campaign or for making gun control a main topic after a mass shooting the media may determine the important issues—that is, the media may set the “agenda” of the campaigns. (McCombs & Shaw, 1972,)

Furthermore McCombs (2006) said, “There are many agendas in contemporary society and many more of these are now readily available to a large segment of the public” (p. 544). Griffin (2013) defined components of agenda-setting theory succinctly: “The media tell us (1) what to think about, and (2) how to think about it” (para. 25). The first process (agenda setting) transfers the salience of items on their news agenda to our agenda, and “The second process (framing) transfers the salience of selected attributes to prominence among the pictures in our heads” (Griffin, 2013, para. 25). Moreover, McCombs (2006) considered the past, present, and future of agenda-setting theory. He noted that the theory’s two primary components, “sometimes called the first and second levels of agenda setting” (McCombs, 2006, p. 546), remain core theoretical underpinnings that aid scholars in their search to understand the effects media have on public opinion.

It is important to distinguish media agenda from public agenda. Griffin (2012) described a media agenda as “The pattern of news coverage across major print and broadcast media as measured by the prominence and length of stories” (p. 379); and, he defines public agenda as “The most important public issues as measured by public opinion surveys” (p. 380). News media set patterns of communication about select issues within society that will potentially affect public opinion.

For an issue to gain traction once it has been selected, news media treat an issue with a communicative concept called framing. As Entman (1993) asserted, *“To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described”* (p. 52, emphasis original). The media use “selection” and “salience” (Entman, 1993, p. 52) to frame issues; that is, issues are targeted and deemed important by news media and eventually permeate through news headlines and, subsequently, become catalysts for developing public opinion.

A newsworthy issue that has been framed and sent into public domain is controlled by gatekeepers. Gatekeeping is an act of agenda setting, and gatekeepers push and manipulate the agenda set forth by the media (Entman, 1993). Shoemaker (1991) defined gatekeeping: “Simply put, gatekeeping is the process by which the billions of messages that are available in the world get cut down and transformed into the hundreds of messages that reach a given person on a given day” (p. 1). Barxilai-Nahon (2008) provided this definition: “Gatekeeping in the communication literature is conceived mainly as a selection process” (p. 1494). Bloggers are gatekeepers who help create and maintain relevancy of issues in print, digital, and visual media.

Purpose

The Internet is a virtual classroom, and bloggers are gatekeepers who help create and share information. The purpose of this study was to examine blogs that focused on

the 2012 pink slime incident. One central question and three subquestions guided this study:

- (1) What did bloggers say about the pink slime controversy?
 - (1.1) How did bloggers define pink slime and LFTB?
 - (1.2) What nicknames were used to describe pink slime and LFTB?
 - (1.3) What concerns about pink slime and LFTB emerged from blogs?

Limitations

The main limitation of this study is the capability of bloggers to edit or delete the content of their blogs at anytime. This study describes an incident that happened more than one year from the start of the research process, and bloggers may have changed the content of their blogs, which could affect the results of this study and others in the future that examine blogs.

Another limitation is the scope of the study. There were many blogs not included in this study's sample that reported the pink slime incident. Blogs were not included in this study's sample if they did not meet the sample criteria.

Assumptions

Blogs were assumed to be written by the author listed in the blog. Some blogs were authored by pseudonyms, but the content of the blogs was assumed to be correct, although information varied from blog to blog. The keywords "pink slime" and "lean finely textured beef" used to collect the sample were assumed to provide this study with data that recounted the pink slime incident and also the bloggers perspective.

CHAPTER II

LITERATURE REVIEW

A limited amount of studies was found in the literature that qualitatively analyzed the content of blogs to examine what bloggers said about a food-related issue such as the 2012 pink slime incident. In this chapter, the following topics are discussed: the Internet and food, blogs, learning through blogs, blogging to spread messages, and blogging for agriculture.

The Internet and Food

The World Wide Web is a storehouse of information for people with access to the Internet. The Internet is a global phenomenon where learning occurs (Brown, 2000). In fact, “It’s easy these days to find a niche community with the expertise you need or special interest group whose interests coincide exactly with your own” (Brown, 2000, p. 19). These virtual communities where knowledge is produced and consumed create online “learning ecologies” (Brown, 2000, p.19), and individuals sharing information contribute to the educational experience (Brown, 2000). In other words, the Internet is a virtual classroom, and online interactions are learning opportunities. Among information about politics, sports, and current events, users in the U.S. potentially encounter food-related information in learning ecologies. For example, the media coverage of pink slime.

Food is an important part of everyone’s life (Pawlick, 2001, pp. 12–13). Yet, a growing urban population in the U.S. has created a gap between food and consumers, as

less than two percent of the U.S. population claims producing food on a farm as their main occupation (U.S. Environmental Protection Agency, 2012; The University of Michigan Center for Sustainable Systems, 2012). This is evidenced by the number of Americans living an urban lifestyle (Berg, 2012). In fact the urban population in the U.S. has increased from 79% in 2000 to 80.7% in 2010, with growth occurring in urbanized areas that include at least 50,000 people (U.S. Census Bureau, 2012). The high percentage of people living in urbanized areas may partially explain the “public disconnect” (Burger, 2011, para. 1) and communication gap between food production and consumers (Higgins, 1991; Sharp, Imerman, & Peters, 2002).

On the disconnect between food production and the consumer, Higgins (1991) asserted that the “unobtrusive nature of agriculture” (p. 220) in daily life has caused the communication gap between farmers and consumers. Higgins (1991) argued, “Unless farmers and nonfarmers begin a sustained effort to communicate with each other, agricultural issues which effect the economy, the environment, and food supplies will intrude upon the daily lives of all citizens” (p. 221).

Realizing the 21st century disconnect between food production and consumers, U.S. farmers have been encouraged to share their experiences to reduce the communication gap between an increasing urban population and its food system (American Farm Bureau Federation, 2009; Zimmerman, 2005). For example the Texas Farm Bureau sponsors Food Connection Week when farmers across Texas go to grocery stores and offer to purchase consumers’ groceries (Tamez-Robledo, 2013). The one-week program aims “to connect farmers and ranchers with their customers and initiate

discussions about agriculture and food-related issues, including affordability, nutrition, food safety, animal welfare, profitability and productivity” (Texas Farm Bureau, 2013, para. 2). An actual presence by farmers and ranchers humanizes the food producers and attempts to close the communication gap and influence public opinion.

Farmers and ranchers try to establish virtual presences through social media as well. They share their experiences in online learning ecologies because “Education about agriculture is the most important way to help consumers understand agriculture in order to support the livelihood of farmers and ranchers in the future” (Carrico, 2012, p. A1). Specifically, farmers and ranchers share personal experiences through social media with the agriculture and non-agricultural public (Fannin & Chenault, 2004; Haley, 2012; Radke, 2010; Zimmernam, 2005). As noted previously, Brown (2000) suggested the Internet is a compendium of messages shared between information seekers. Therefore, stories and information about food production and food-related issues shared on the Internet might affect consumer behavior.

The potential for miscommunication between food production and consumers drives the movement to establish relationships between food and consumers. The AgChat Foundation and United States Farmers and Ranchers Alliance (USFRA) were created to provide consumers with information about food production (AgChat, 2012, About Us; U.S. Farmers and Ranchers Alliance, 2012, About Us). AgChat Foundation helps producers use social media to share their experiences; its purpose is to “Empower farmers and ranchers to connect communities through social media platforms”(AgChat, 2012, About Us). AgChat hosts weekly group chats on Twitter and holds regional

conferences that teach farmers how to use various social media platforms to share agricultural experiences (Carrico, 2012, A3). Similarly, USFRA empowers not only farmers and ranchers but also consumers (U.S. Farmers and Ranchers Alliance, 2012, About Us). In a national campaign called Food and Fiber Dialogues, USFRA collaborated with American Farm Bureau Federation (AFBF). In cities such as Los Angeles and New York, the USFRA and American Farm Bureau forums are bringing together farmers, scientists, celebrity chefs, professional educators, and members of mass media to discuss different topics in offline and online conversations about food and fiber production (U.S. Farmers and Ranchers Alliance, 2012, About Us).

Texas farmers, AgChat, and USFRA are not alone in their quest to reduce the communication gap between food and consumers. Moms wanting to be resources for consumers have embraced social media as tools to raise awareness among urban populations on food production. One group of women formed a coalition called CommonGround, which is funded by America's soybean and corn farmers. CommonGround is "all about starting a conversation between women who grow food, and the women who buy it. It's a conversation based on our personal experience as farmers, but also on science and research" (About, para. 1). The coalition's mission to raise awareness about food production is based on the assumption that consumers are disconnected from the facts about their food (CommonGround, 2013). To accomplish their mission, the moms host farm tours and travel to cities to speak about their farms, as well as present information about food production in blogs.

Blogs

Blogs are innovations providing users opportunities to learn (Tremayne, 2007). Rogers (2003) defined an innovation as “an idea, practice or object that is perceived as new by an individual or other unit of adoption” (p. 12). Rogers (2003) suggested that an innovation diffuses through social networks within and across social systems. Blogs traveled through a social network users after September 11, 2001, helping Americans share their stories and exchange information with the world (Herring, Scheidt, Kouper, & Wright, 2007; Rosenberg, 2009; Scoble & Israel, 2006; Stone, 2004).

Stone (2004) claimed that the 9/11 terrorist attacks sparked the public’s interest in blogging. Scoble and Israel (2006) shared Stone’s assertion, noting that “something” not “everything” (p. 23) changed for blogging after the 9/11 attacks. Herring, Scheidt, Kouper, and Wright (2007) credited the rise of blogging to a lack of news coverage during and after the 9/11 attacks. Herring et al. (2007) provided evidence suggesting the inaccessibility of major news agencies during and after the attacks led people to use alternate communication media to send information back and forth between users. Finally, Rosenberg (2009) asserted the 9/11 attacks “marked the moment that the rest of the media woke up and noticed what the Web had birthed” (p. 8). At the turn of the 21st Century, bloggers had created the Blogosphere, a virtual space where users shared, and continue to share, information with the world.

Since 9/11 the term blog has become a noun and a verb. Kerbel and Bloom (2005) offered another dichotomous definition of blogs: “At their least interactive, they are vehicles for the one-way communication of ideas by the person or persons who run

the blog. At their most interactive, they permit anyone to initiate topics for discussion and express their thoughts about what others have said” (p. 5). Bruns (2006) called for a “descriptive qualifier” (p. 3) to be used when describing blogs and provided examples of qualifiers including “diary,” “corporate,” “community,” and “research” (p.3). Including Bruns and Jacobs’ qualifiers, many genres of blogs exist including political, health, mommy, and food-related. In addition, Kent (2008) described two types of blogs, traditional and news: traditional blogs speak like a diary to a narrow audience and are mostly unaffiliated with a corporation, business, or news agency; whereas a news blog presents actual news to a wider audience and affiliates with a corporation, business, or news agency.

The many different blog types not only show the expanse of blogging but also the research opportunities. Jones and Alony (2008) discussed the increasing popularity of blogging and the motivations of bloggers, reporting that “research about bloggers is still emerging and requires frequent updates” (p. 3). They noted bloggers share their experiences for the following seven reasons: (1) need for self-expression, (2) need for recognition, (3) need for social contact, (4) need for introspection, (5) academic needs for knowledge and interests, (6) need for documentation, and (7) need for artistic activity. Bloggers have been motivated to share information. NM Incite (2011), a social media marketing and research service, reported by the end of 2011 more than 181 million blogs existed in the Blogosphere, up from 36 million only five years earlier. The U.S. portion of the Blogosphere contains more than 30 million U.S. blogs (Rampton, 2012). The rise in blogging’s popularity can be credited to the first generation bloggers

of the 9/11 attacks, and blogging since then has expanded the boundaries of learning ecologies.

Today, free blogging software such as Wordpress and Blogger provide users an opportunity to become citizen journalists. In *Citizen Journalist: A Case Study on Using Blogs for Self-Promotion*, Djajalie (2011) claimed citizen journalism happens when “the general population is able to voice their own opinions and have them reach a wide number of readers” (p. 10). Fanselow (2009) described the potential of citizen-generated blogs: “The best blogs evolve into online communities where dozens—sometimes hundreds—of citizens regularly comment, offer news tips, and generally gather around these blogs just as they might meet at a local coffee shop” (p. 24). Bloggers become citizen journalists by sharing opinions with online communities (learning ecologies). Therefore, citizen bloggers can practice opinion leadership. Rogers (2003) defined opinion leadership:

The degree to which an individual is able to influence other individuals’ attitude or overt behavior informally in a desired way with relative frequency. This informal leadership is not a function of the individual’s formal position or status in the system. Opinion leadership is earned and maintained by the individual’s technical competence, social accessibility, and conformity to the system’s norms. When the social system is oriented to change, the opinion leaders are more innovative; but when the system’s norms are opposed to change, the behavior of the leaders also reflect this norm. Through their conformity to the system’s norms, opinion leaders serve as a model for the innovation behavior of

their followers. Opinions leaders thus exemplify and express the system's structure. (p. 27)

Furthermore, Rogers's diffusion of innovations theory suggests that consumers learn about the world through the use of media; and, consequently, consumer behavior is affected (Baldwin, Perry & Moffitt, 2004). Blogging's popularity and diffusion across the world has allowed bloggers to report food-related issues potentially become opinion leaders that affect consumer behavior.

Learning through Blogs

The popularity of blogging and the different motivations of bloggers to practice citizen journalism and opinion leadership form virtual classrooms (learning ecologies) in which information can be created and consumed by people with Internet access. Farrell and Drezner (2008) described the Internet as a "web of influence" (p. 32) where bloggers advocated for agendas. Blogs "can function as personal diaries, political analysis, advice columns on romance, computers, money, or all of the above" (Farrell & Drezner, 2008, p. 33). Blogging has drawbacks that undermine their influence, and despite the opportunity to present information about issues, bloggers are somewhat limited because they depend on various media and experts for information.

Nevertheless, as more Web diarists come online, the blogosphere's influence will more likely grow than collapse. Ultimately, the greatest advantage of the blogosphere is its accessibility. . . . Most bloggers are ordinary citizens, reading and reacting to those experts, and to the media. (Farrell & Drezner, 2008, p. 40).

Echoing Farrell and Drezner (2008), Flatley (2005) questioned the functionality of blogs: “As I contemplate ways to use blogs to develop my current methods of working, I also ponder not whether blogs are fad or function but whether perhaps their ubiquitous use indicates they are a disruptive technology” (p.79). Despite the concerns about blogging, Flatley (2005) conceived blogs as teaching tools in classrooms, saying “[Blogging] can be an extension of a classroom, where discussions are continued and where every student gets an equal voice” (p. 77). For example, after describing an experience where students used blogs instead of email to collaborate on group report assignments, Flatley (2005) said the students were “more attuned to their assignments and to their group members” (p. 79, para. 2). Flatley (2005) finished by stating that the future of blogs in politics, marketing, and education is “bright” (p. 79). Flatley shared Brown’s (2000) contention that learning opportunities in blogs and information in the blogs can affect consumer behavior.

Blogging to Spread Messages

To learn about the role of blogs in marketing, Kent (2008) analyzed the strengths and weaknesses of blogs in the public relations profession. Kent (2008) said, “Allowing or encouraging visitors to an organization’s Web site to participate in how online news and information is framed is possibly the greatest strength of blogs and the feature of the most importance to public relations practitioners” (p. 35). Kent (2008) suggested the weaknesses of blogs were due to two types that can be shared: controlled and uncontrolled. Controlled messages may be ignored or deemed agenda-driven, and misinformed or altered blogs may contain uncontrolled messages that can maintain an

agenda (Kent, 2008). Used to provide information about the food system, blogs are public relation tools that either reduce the communication gap between producers, consumers, and the food system; or, blogs hinder the efforts to reconnect consumers with their food.

In a pilot test, Porter, Sweetser, Chung, and Kim (2007) surveyed public relations practitioners to examine the relationship between power and blog use. They investigated how blogs factor into practitioners' structural, expert, prestige, and ownership power within their organizations. Results showed differences based on power between blog users and non-users, as well as owner-practitioners and non-owners. Furthermore, three categories emerged that describe the reason for blogging: routine information and research, interactive blog communication, and issues identification. Though the results of their study showed blogs are not being used as standard public relations tools, blogs are considered a useful communication tool.

Blogging is not only a public relations tool but also an act of civic involvement motivating people from around the world to share information. Civic involvement requires "socially conscious thought and action" (National-Louis University, 2013, para. 1) to promote community-building. Kerbel and Bloom (2005) hypothesized that bloggers writing for *Blog for America* engaged in civic involvement during Howard Dean's 2004 presidential campaign. The researchers analyzed the content of 3,066 blogs posted on March 15, 2003, through January 27, 2004. Results from the study showed "Blog for America [*sic*] addressed themes that are prevalent in conventional coverage without the cynical bent of television and print political news" (Kerbel & Bloom, 2005,

p. 21). The researchers equated the blog's role in civic involvement to the "partisan press of the nineteenth century" (Kerbel & Bloom, 2005, p. 22), whose job was to use language as a means to advocate for political agendas. Here it is important to note that Flatley (2005) credited the rise of blogs as advocating tools to the fundraising efforts during Howard Dean's 2004 presidential campaign.

Woodly (2008) studied how the presence of blogs has altered the structure of political communication. Although Woodly (2008) admitted that "blogs do not overturn the effect of traditional mass media in the public sphere. Nor do they, by their mere existence revolutionize the typical citizen's experience of American politics" (p. 122), the researcher concluded that blogs affect political communication in the U.S. because bloggers can create news worthy of consumption. Furthermore, Wallsten (2007) tracked issues on the Internet to assess the role that political bloggers play in the agenda-setting process. Wallsten's (2007) central research question was "What is the relationship between the media and blog agendas?" (p. 567). Arguing that a blog agenda consists of topics or issues that bloggers write about, Wallsten (2007) said there is a relationship between the media and blog agendas, noting political bloggers rely on established media outlets for information and they consider themselves as the "fifth estate," a term first used by Cornfield, Carson, Kalis, and Simone (2005) to describe traditional media and citizen bloggers:

Recall from French history that the four estates consist of the political "nobility" (today, that would be government, parties, and top advocacy groups), the knowledge "clergy" (academia, think tanks, foundations, research institutes), the

popular “citizenry,” and the “press” (infotainment media). Results showed there is a “complex, bidirectional relationship between mainstream media coverage and the blog discussion” (Wallsten, 2007, p. 581).

Like the language used to frame political issues, language used to describe food issues in blogs can advocate specific opinions, concerns, or agendas.

Strength and weaknesses of blogs offers learning opportunities that transcend offline interactions. Blogs and social media have minimized the geographic obstacles dividing global populations, allowing people throughout the world to connect through online, communicative exchanges (Tremayne, 2007). For example in the U.S., social media is used to connect and remain in contact with family and friends, as well as to engage in discourse about shared interests and establish new relationships (Smith, 2011). Of adult users in the U.S., 67% reported they use social networking sites (Brenner, 2013). Social networking software such as Facebook, Twitter, and blogs are communication tools that may serve as a viable mechanism to reduce or close the communication rift between food producers and consumers (Baumgarten, 2012; Carrico, 2012; Moore, 2012; Truitt, 2010). Keefe (2012) proclaimed to producers in the meat industry following the pink slime controversy, “If a ‘mommy blogger’ or vegan or animal rights activist can pass information on to hundreds of blog followers, so can you” (p. 2, para. 8).

Blogging for Agriculture

Three studies (Fannin & Chenault, 2004; Moore, 2012; Rhoades & Hall, 2007) have focused on agriculture blogging. Fannin and Chenault (2004) experimented with

blogging during a Texas A&M University Beef Cattle Short Course, an annual learning experience that provides information about cattle production to the farming and non-farming public. The experiment was “the perfect opportunity to try Web logging [blogging] and to gauge interest from journalists and non-media consumers” (Fannin & Chenault, 2004, p. 51). One journalist expressed her unfamiliarity with blogging but told the researchers that after participating in the course she “knows it’s a good thing” (Fannin & Chenault, 2004, p. 55). The researchers concluded that blogging would help disseminate agricultural information to producers and consumers.

Rhoades and Hall (2007) performed a content analysis of 52 agriculture blogs, identifying basic characteristics of the blog, as well as blog themes and age, bloggers’ gender, and bloggers’ occupation. To collect the sample, they searched the blog directories Best of the Web and Technorati. In their recommendations for future research, they said the following: “Continued research on the state of blogging in agriculture, its utility in reaching rural audiences, and its importance to telling the rural story must be conducted” (Rhoades & Hall, 2007, p. 51).

Moore’s (2012) qualitative study explored how and why agricultural commodity organizations use blogs as a communication tool. Moore interviewed blog administrators and asked questions about their motivations to blog and how they measured their blog’s success; the administrators were asked for opinions, attitudes, and beliefs about the use of their blogs. Moore’s analysis revealed that that the organizations blogged to share messages with audiences, but the audiences were not predetermined. Future research on individual farm blogs was encouraged: “While the current study’s

purpose was to examine commodity organization's use, more research is needed to explore why individuals in agriculture such as farmers and ranchers choose to utilize blogs to communicate about their agricultural operations" (Moore, 2012, p. 127).

CHAPTER III

METHODS

To answer the central question and the three subquestions of this study, a qualitative analysis was performed on the content of blogs. Merriam (2009) described qualitative content analysis as an inductive approach to data analysis that “involves the simultaneous coding of raw data and the construction of categories that capture relevant characteristics of the document’s content” (p. 205).

Preserving four components of quantitative analysis can lend the advantages of quantitative analysis to qualitative content analysis (Mayring, 2000). Mayring (2000) presented four components of quantitative analysis to be preserved by researchers qualitatively conducting a content analysis. First, the researcher should focus on “fitting the material into a model of communication” (Mayring, 2000, p. 3); the analysis should focus on specific aspects as determined by the research question(s) and purpose. Second, the researcher should set “rules of analysis” (Mayring, 2000, p. 3); the analysis should follow a systematic process. Third, the researcher should set “categories in the center of analysis” (Mayring, 2000, p. 3); the researcher should develop codes, categories, or themes and during analysis should revisit and revise them as necessary. Last, the researcher should ensure a “criteria of reliability and validity” (Mayring, 2000, p. 3); the researcher should take steps to ensure the credibility, reliability, and validity of the study.

The population of this study is blogs. To collect the sample, Google was used to search the keywords “pink slime” and “lean finely textured beef.” The Internet changes daily, and this unpredictability can challenge researchers when collecting data (McMillan, 2000). In studying blogs, researchers have used various methods of data collection (Li and Walejko, 2008). Herring, Scheidt, Bonus, and Wright, (2004) used a special search feature on the website, Blo.gs, to compile a random sample of 203 blogs; although the website is currently accessible, the blog selection search feature is defunct. In their longitudinal content analysis of 457 randomly-selected blogs, Herring, Scheidt, Kouper, and Wright (2006) also used the now defunct blog selection feature.

Researchers have identified alternative methods capable of collecting blogs. Hookway (2008) described blog content management systems (BCMS) that might aid social researchers interested in studying blogs. Examples of BCMS include but are not limited to Blogster, LiveJournal, Xanga, Typepad, Diaryland, Blogit, Blogharbour, Squarespace, Blurty, Blogger, Opendiary, Journalspace, and Whitepage. In a descriptive and explanatory study of 260 blogs, Papacharissi (2007) collected a random sample by performing a search of user directories found on Google’s free blog-publishing website, Blogger.com. Researchers can use a BCMS search engine or a website-specific search feature to search for key terms intended to help answer a study’s research questions or complete research objectives. For example, Wenger (2008) analyzed 114 travel blogs on www.travelblog.org. The website’s homepage provides an interactive world map that readers can use to select blogs that describe particular regions. A keyword search box is available, as well as featured blogs, newest blogs,

panoramic blogs, and bloggers of the week (Travel Blog, 2013). In Wenger's (2008) study, blogs were selected based on demographic information, including gender, age, and country of origin. Similarly, Banyai and Glover (2011) used the keywords "tourism travel blogs" to search Google scholar for studies on travel blogs.

Sample Collection and Data Analysis

In the following section, how the sample was obtained and how the data were analyzed are described. The sample criteria was developed to identify blogs and to narrow the sample.

Google was chosen to obtain the sample of bloggers. Lewandowski (2012, p. 2) suggested that talk about search engines leads to discussions about Google. *PC World*, a magazine and website that offers products and solutions to everything digital, referred to Google as "the world's most popular search engine" (Paul, 2012, n.p.). Mendelson (2012) describes Google as a "monolithic" (p. 24) word that has become a verb synonymous with searches. Furthermore, researchers from Pew Research Center state that "Google continues to be the most popular search engine, by a wide margin" (Purcell, Brenner, & Rainie, 2012, p. 4). Purcell, Brenner, and Rainie's (2012) study of use among U.S. adults 18-years-old or older showed that 83% of users choose Google. Another report showed that Google grabs approximately 86.3% of the U.S. market (Karma Snack, 2013). Finally, the Top 10 Search Engines List (2013) shows Google is used by approximately 170 million users. Google was selected for this study because it is a widely used and popular search engine; another reason is that users rely on search engines as they begin their search for information (Lewandowski, 2012).

Though search engines are “major portals for users of the Web” (Bernard & Pooch, 2001, p. 237) that deliver information with the click of a button, their use in academic research is “still in its infancy” (Lewandowski, 2012, p. 1).

Blogs were chosen because they are sources of publicly available content.

Bloggers, as citizen journalists, create information that can be accessed by using a search engine and key word search. In the attempt to share information, bloggers assume the role of a not only members of the media but also opinion leaders. To obtain a sample of blogs, Hookway (2008) suggested that “generic blog content searching can aid purposive sampling” (p. 99). Glassner (1982) suggested “systematic selective sampling” (p. 309) or purposive sampling provides researchers opportunities to select a sample that fits the criteria and goal(s) of the study. Fraenkel and Wallen (2006) differentiated convenience and purposive sampling: “Purposive sampling is different from convenience sampling in that researchers do not simply study whoever is available but rather use their judgment to select a sample that they believe, based on prior information, will provide the data they need” (p. 101). Based on blog characteristics, the purposive sample was created (Merriam, 2009, p. 77). The following criteria was used to collect the sample:

- (1) Google’s description or a blog’s web address contained "blog," "blogger," "blogspot," or "weblog."
- (2) Blog hosted by free software such as Blogger, Wordpress, and Typepad
- (3) Blog written in English
- (4) Blog identified to originate in the U.S.
- (5) Blog posted between March 1, 2012 and April 30, 2012
- (6) Blog content original to the blogger

Doyle, Heslop, Ramirez, Cray, and Armenakyan (2012) performed a content analysis of 175 professional (commercial) and personal (non-commercial) wine blogs to determine their trustworthiness. Due to the ebb and flow, Doyle et. al (2012) created a “sample frame” (p. 203) from several lists of wine blogs. Following Doyle et al.’s sample, blogs that did not meet this study’s sample criteria were excluded from the final sample. Collecting the sample required three steps: (1) a keyword search appropriate for the research purpose; (2) review of preliminary search results to include the criterion ensuring that descriptions on the Google results page or a blog’s web address showed the specific words “blog,” “blogger,” “blogspot,” and “weblog”; (3) preliminary read of the blogs to remove blogs that did not match final criteria previously identified.

The sample collection process began at google.com/blogsearch, a feature of Google called Google Blogs. In the search box, two keyword phrases, “pink slime” and “lean finely textured beef,” were entered. Each search was performed independently. On May 6, 2013, the keyword "pink slime" (no quotations) was typed in the search box, and 14 pages of results were searched. On May 7, 2013, google.com/blogsearch was visited again and the keyword “lean finely textured beef” was typed in the search box. Fourteen pages of results were searched, as was done in the previous search for blogs with the keyword “pink slime.” For both searches, the twelfth page was the last page to show a blog that fit this study’s criteria, but two more pages (13, 14) were examined to ensure blogs were not excluded that fit criterion 1 and 2; blogs in the sample with "blog," "blogger," "blogspot," or "weblog" were included in the description on the results page(s); if a URL did not have these keywords in the description, but were hosted by

blogging sites, Blogger, Wordpress, Typepad, or other known blog-hosting sites, then they were included in the sample as well.

Blogs obtained using the “pink slime” keyword phrase search are referred in the results section as PSBL (Pink Slime BLog); and, blogs obtained using the “lean finely textured beef” keyword search are referred as LFBL (Lean Finely BLog). For example, PSBL2 refers to the second blog in the pink slime group; LFBL5 refers to the fifth blog in the lean finely textured beef group. Refer to Appendix A and Appendix B for a complete list of the blogs used in this study. PSBL4 was eliminated because it was a list of hyperlinks, of which only one led to a government report summarizing the events resulting from the spread of information about pink slime. PSBL12 was eliminated from the sample because it was a food recipe. LFBL18 was eliminated because it was a reprint of a report by National Public Radio (npr.org). LFBL20 was eliminated because it was written by a blogger from Ukraine.

During the sampling process, a data-gathering guide using Microsoft Excel was created. In the spreadsheet, the following was described about the sample: blog number in the sample, blog name, blog title, keyword used to locate the blog, date the blog was posted, the type of blog (Wordpress, Blogger, Typepad, or other), author (name or unknown), my summary of the blog, blogger’s description of pink slime or lean finely textured beef, nicknames for pink slime and lean finely texture beef, recurring phrases and terms (indicators), and nouns describing the blog’s content

The following is a summary of how the final sample was obtained. The sample collection was an ongoing process from May 6, 2013 to May 28, 2013. A total of 50

blogs were identified using the sample criteria. A total of 24 blogs were collected using the keyword phrase “pink slime,” and a total of 26 blogs were collected using the keyword phrase “lean finely textured beef.” Six blogs were omitted from the final sample. A total of 44 blogs were analyzed.

Two weeks were spent analyzing the sample of blogs. On May 28, 2013, the sample criteria was used to perform a final check of the sample. Blogs that met the sample criteria were identified, and five blogs were added to the pink slime group: PSBL19, PSBL20, PSBL21, PSBL22, PSBL23. However, PSBL21 was eliminated from the final sample because the blogger identified New Zealand as his home country, indicated by blog content and a New Zealand flag set as the background of the blog. Furthermore, a total of six blogs were added to the lean finely textured beef group: LFBL21, LFTB22, LFTB23, LFTB24, LFTB25, LFTB26. However, LFTB21 was eliminated because the blog contained one hyperlink that, after clicking the link, opened a National Cattlemen’s Beef Association news release. These 11 blogs were analyzed considering the indicators, codes, and categories that were previously created after analyzing the initial sample obtained during the prior two weeks. Similar indicators identified in the blogs from the initial sample recurred, so this final check on the sample led to the conclusion that a saturation point had been reached.

After the sample was collected, Glassner’s (1982), Schilling’s (2006), Merriam’s (2009) and Saldaña’s (2011; 2013) recommendations for conducting qualitative content analysis were closely followed.

Glassner (1982) suggested that there is no single way to conduct qualitative content analyses. To begin, researchers need access to material that will be analyzed; for example, “Many documents such as newspapers, magazines, books, government reports, and scientific literature are intended for public audiences” (Glassner, 1982, p. 308). Blogs were analyzed because they are available to public audiences and are sources of data (Glassner, 1982); in fact, blogs are available for free or for service fees and offer a “new source of data analysis” (Jones & Alony, 2008, p. 1). Whether bloggers manage a free webpage or upgrade to a premium package, blogs are easily accessible to users and researchers.

Once researchers gain access, they should develop an understanding of the material. Glassner (1982) said, “One might construct maps according to the social class, theoretical position, gender, geography or other relevant characteristics of the writers” (p. 309). In other words, researchers should get to know their material before sampling occurs. Because of my involvement with food and U.S. agriculture, the pink slime controversy intrigued me when it first appeared in the mainstream news headlines in March 2012. I was aware of the controversy and knew there were bloggers talking about it.

Schilling (2006) presented levels to consider when qualitatively conducting a content analysis. A researcher should set rules for transcribing tapes to written text; the blogs in this study’s sample were previously written and available on the Internet. Before the analysis begins, Schilling (2006) noted, researchers should describe the context from which the data was obtained, explaining any variables that might affect

analysis. The sample of blogs was obtained through a Google search. One variable that might have affected the analysis was my worldview, which was presented earlier in this study to minimize any effects resulting from my emotional investment in food.

Furthermore, after the context is described, researchers should establish the basis of the “communication model” (Mayring, 2000, p.3) with which the data will be viewed and also define the units of analysis. Units of analysis may range from single words, half sentences, full sentences, single paragraphs, or multiple paragraphs. Then researchers should begin the process of content analysis that requires paraphrasing; the aim of this step is to reduce the material while preserving the essential contents”(Schilling, 2006). While condensing the material, researchers should recognize relationships of ideas within sentences, separating or grouping ideas as necessary to maintain basic understanding of the meaning(s). Research questions, based on the study’s theoretical conditions, will determine which material to keep and which to delete. The next step is to structure the data within the established categories. At this stage in the analysis categories can be defined, then further analyzed, and either maintained or redefined (Schilling, 2006). During this stage in the analysis, data were revised, omitted, and added. Poster boards, scraps of paper, and the data-gathering guide was used maintain order. Schilling’s (2006) final level of analysis includes a researcher’s interpretation. The interpretation of this study’s results is in the discussion and conclusion section.

Throughout the analysis, the constant-comparative method was used (Glaser & Strauss, 1967). Merriam (2009) described the constant-comparative method:

Basically, the constant comparative method involves comparing one segment of data with another to determine similarities and differences. Data are then grouped together on a similar dimension. The dimension is tentatively given a name; it then becomes a category. The overall object of this analysis is to identify patterns in the data. These patterns are arranged in relationships to each other in the building of a grounded theory. (pp. 30–31)

Though the constant-comparative method is conventionally used in research guided by a grounded theory approach, Merriam (2009) reminded that the method “is widely used in all kinds of qualitative studies, whether or not the researcher is building a grounded theory” (p.31).

To interpret the data, *in vivo* coding and descriptive coding were used. Researchers using *in vivo* coding select codes based on their interpretations of the significance of what the data presents in accordance with the focus of the research (Saldaña, 2011). Researchers using nouns as codes to reach categories employ descriptive coding techniques using *in vivo* coding (Saldaña, 2011). From the blogs, single words, phrases, and complete sentences deemed relevant to the research questions were extracted. Nouns were used to identify the blog content referencing descriptions, nicknames, and concerns about pink slime and lean finely textured beef. Schilling (2006) described this level of data analysis as “condensing content analysis” (p. 31), where a researcher extracts meaning from the content in bits or wholes while maintaining the content’s essential context. Data was inserted in the Excel spread sheet

(data-gathering guide), and noun indicators, as well as phrases, were used to code and categorized the data.

Ensuring validity and reliability, an “audit trail” (Merriam, 2009, p. 229) was maintained through a reflexive journal, large white poster boards, and a data-gathering guide. An audit trail helps researchers document the research process (Merriam, 2009, p. 229). A reflexive journal was used to capture decisions and general thoughts, and concept maps and lists were drawn on large white poster boards and whiteboards. Finally, in this study’s results section, “rich, thick descriptions” (Merriam, 2009, p. 229) of blogger opinions and concerns are presented. Below is an example of the template used to describe and categorize the data (Saldaña, 2013):

Subquestion:

Category:

Subcategory:

Code:

Description – a 1 to 3 sentence description of the coded datum’s qualities or properties

Inclusion criteria – conditions of the datum or phenomenon that merit code

Exclusion criteria – exceptions or particular instances of the datum or phenomenon that do not merit the code

Typical exemplars – a few examples of data that best represent the code

Atypical exemplars – extreme or special examples of data that still represent the code

“Close, but no”¹ – data examples that could mistakenly be assigned this particular code

¹ Not always necessary if data within codes are not confusing

CHAPTER IV

RESULTS

Of the 50 blogs collected, 44 were analyzed. Two types of blogs were identified: traditional and news (Kent, 2008). Traditional (personal) blogs include blogs hosted by free blogging software such as Wordpress, Blogger, and personal websites. News blogs included blogs hosted by organizations such as *New York Times*, Disney and other media associated with corporations, agencies, or businesses. Of the 20 blogs in the pink slime group, 15 blogs were categorized as news blogs; examples include blogs sponsored by the *New York Times*, Disney, CNN, WebMD, and an FDA consulting firm. The remaining five blogs were categorized as traditional, or personal, blogs. Of the 24 blogs in the lean finely textured beef (LFTB) group, 12 blogs were news blogs; examples include blogs from the USDA, Penn State College of Agricultural Sciences, Disney, and the *New York Times*. The remaining 12 blogs were traditional, or personal, blogs.

Example blogs and data tables in the following sections show how the data were organized into codes and categories to answer the three sub questions of this study's central question.

Definitions of Pink Slime and LFTB

Descriptions of the beef product were recorded in the data-gathering guide to answer the subquestion 1.1: Definitions of pink slime or LFTB were mentioned near the beginning of the blog and comprised at least one complete sentence; throughout the

blogs, definitions were similar but not identical. For example, in PSBL6 the beef product was negatively described as the following:

The beef trimmings referred to here are what is left over once all the cuts of beef have been removed from the cow. (These trimmings were once deemed unfit for human consumption and used for dog food). The trimmings are spun in a centrifuge to separate the “meat” from the fat and then the meat is treated with ammonium hydroxide in an attempt to kill all the harmful forms of bacteria present.

This definition was coded negative because the word “meat” is in quotations, suggesting that the blogger questions whether the beef products is actually meat. Conversely, PSBL2 said this about the beef product:

When an animal is butchered, the steaks or roasts are carved up, and the "trimmings" or remaining lean meat (with connective tissue and fat) is sent to a meat processing facility, usually to become ground meat. This has been standard practice (and generally accepted by the nutrition community) since the early 1990s.

The blogger provides a specific description and supports it with information detailing the longevity of the beef product in the food system.

Table 1 shows the positive and negative opinions used in the descriptions of the beef product. To be considered as a description, “beef,” types of beef, or references to beef must have been mentioned. Positive opinions of definitions closely matched BPI or industry descriptions while negative descriptions did not or contained exaggerated or

unclear descriptions. Examples of terms or phrases used when positively describing or defining the product include boneless beef trimming, lean muscle, and protein.

Examples of negative terms or phrases used when describing the product include pinkish substance, scraps, unappetizing moniker, slaughterhouse scraps, and last scrapings.

Table 1

Positive and negative opinions of the beef product

Positive Exemplars
Boneless beef trimming
Lean muscle
Protein
Steaks

Negative Exemplars
Pinkish substance
Scraps
Unappetizing moniker
Slaughterhouse scraps

Table 2 shows the positive and negative descriptions of the process used to produce the product. To be considered as a processing method, production methods must have been mentioned. Positive opinions of methods closely matched BPI or industry descriptions while negative descriptions did not or contained exaggerated or

unclear descriptions. Examples of terms or phrases used when positive describing or defining the production of the product include boneless 20-year-old process, amazing invention, standard practice since the 1990s, and puff of ammonia gas reacts with water to form ammonium hydroxide. Examples of negative terms or phrases used when describing the production of the product include mass producing food, factories, and cheap.

Table 2

Positive and negative opinions of the processing methods

Positive Exemplars

20-year-old process

Amazing invention

Standard practice since the 1990s

Gas reacts with water to form ammonium hydroxide

Lean muscle centrifuged out of fat trimmings

Negative Exemplars

Mass producing food

Factories

Cheap

Nicknames for Pink Slime and LFTB

A “nickname” was a single word or a brief set of words other than pink slime or lean finely textured beef used by bloggers to reference the beef product; the definitions and nicknames are closely related, and often nicknames were used in the definition. For example in the definition in PSBL1:

Lean beef trimmings are processed from beef that is trimmed from steaks and roasts, this product is 100% beef. Usually these cuts have a high percentage of fat, so a process was developed that separates the lean muscle tissue from the fat (and I’m all for that!). This prevents the waste of lean, healthy beef.

Furthermore, in the description provided by PSBL19, the blogger used the nicknames, lean beef trimmings, trim from steaks and roasts, lean muscle tissue, and lean, healthy beef. In addition, LFBL4 consistently referred to the beef product by the positive nickname, lean beef trimmings (LBT), that were used by the beef industry. LFBL26 referenced the beef product as meat-stuff, cheap filler, and LFTB-whatever. PSBL13 negatively referenced the beef product as slaughterhouse scraps, and, similarly, PSBL14 simply called the beef product, crap. Finally, PSBL19 called the beef product, cheap-o recycled beef paste and pet chow-quality meat.

The nicknames were analyzed and one code, two subcategories, and one category were created. One code is *beef*. Two subcategories are *positive* and *negative*. The category is *opinion*. Tables 5 and 6 show data used to answer subquestion 1.2.

Table 3 shows the positive and negative nicknames of the beef product. To be considered as a nickname, names other than other than pink slime or lean finely textured

beef must have been mentioned. Positive nicknames connoted a positive meaning of the beef product. while negative nicknames did not or contained exaggerated or unclear descriptions. Examples of terms or phrases used when positively describing or the beef product include boneless beef trimming, lean beef trimming, remaining lean meat, lean meat trimmings, lean muscle, substance, paste, filler, additive, food additive, technological marvel, textured beef, ammoniated beef. Examples of negative terms or phrases used when describing the beef product include pinkish substance, scraps, unappetizing moniker, slaughterhouse scraps, slaughterhouse leftovers, fat-reduced slaughterhouse scraps, last scrapings, waste trimmings, filler meat scraps, beef-by-products, actual food product, “meat,” unused scraps of meat and connective tissue, beef scraps, BLBT according to industry, slime, Jell-O, glut of fat, connective tissue and other once largely unsalable remnants, dog food, not halal, animal parts, additive, Slimageddon 2012, crap, ammonia-soaked cow scraps, meat monstrosity, hamburger enhancer, desirable (to hamburger makers), cheap-o recycled beef paste, pink goo.

Table 3

Positive and negative nicknames used to describe the beef product

Positive Exemplars
Boneless beef trimming
Lean muscle
Protein
Steaks

Table 3 Continued

Positive Exemplars
Roasts
Lean meat trimming
Negative Exemplars
Pinkish substance
Scraps
Waste trimmings
Slaughterhouse scraps
Last scrapings
Filler meat scraps
“Meat”
Crap
Meat Monstrosity
Ammonia-soaked cow scraps

Concerns about Pink Slime and LFTB

The codes used to create the categories were health, efficiency, cost, choice, media, intent, and skepticism. The codes were grouped to create four categories: health and efficiency comprise the welfare category; cost and choice comprise the consequence category; media and intent comprise the expertise category; and, skepticism comprises the conspiracy category. Unlike in the previous two coding templates, there were zero

subcategories in this coding template because the indicators clearly supported specific codes and subsequent categories LFBL12 described several topics that were used to create the categories:

The beef additive has made its way to many fast food drive-thrus, grocery stores, and school lunch programs, in efforts to keep food costs down. Since the use of lean, finely textured beef does not require labeling, it is difficult to determine exactly which companies use this beef additive in their foods.

Focusing on quality, LFBL8 described the beef product's nutritional value:

The nutritional profiles of lean finely textured beef and traditional ground beef are nearly identical. Lean finely textured beef is 90%-to-95% lean (5%-10% fat) and, just like all beef, is a good or excellent source of 10 essential nutrients including protein, iron, zinc and B vitamins.

In addition, PSBL2 highlighted the nutritional value of ground beef made from whole cuts and ground beef made from trimmings:

When choosing meat, whole cut (or ground meats made from whole pieces of meat) are the healthiest choice. Solely from a nutrition standpoint, ground meat trimmings are still a source of high-quality (biologically speaking) protein.

However, it's up to each consumer whether they feel comfortable consuming it.

Conversely, LFBL17 said this:

According to ABC News, in a statement from Safeway, the grocery store chain blamed its discontinuation of selling pink slime on recent news stories causing consumer concern, and added that both USDA and food industry experts agree

that "lean finely textured beef is safe and wholesome." Uh, right. 'Cause who doesn't think ammonia-treated meat made from dog food scraps and cooking oil is just as nutritious as pure ground beef -- oh, that's right, former USDA scientists and EVERYONE ELSE.

About the use of ammonia to kill pathogens, PSBL19 questioned the antimicrobial processing agent:

Just because something [ammonia] is naturally occurring, that does not automatically suggest that it is good for you to consume. For instance, urine is naturally occurring but it is not recommended you spray it on your food. Ammonium ions are a toxic waste product of the metabolism in animals. In mammals, sharks, and amphibians, it is converted in the urea cycle to urea, because it is less toxic and can be stored more efficiently. Sorry, another reference to urine.

LFBL19 presented information about the processing of the beef product:

In the BP system, ammonium hydroxide is used to destroy bacteria (alternatively, citric acid is used). This product is "generally recognized as safe" [GRAS] by the U.S. Food and Drug Administration and it's used in a variety of foods. The beef is not "soaked in ammonia" as many reports have claims, but rather sprayed with a "hydrolyzed ammonia" mist to kill bacteria which then evaporates and completely dissipates.

PSBL1 mentioned fast food and grocery stores: "The McDonald's restaurant chain as well as grocery giants Kroger Co. and Safeway have joined the list of companies that no

longer sell beef with the filler.” About the pink appearance and cost of the beef product, LFBL3 said this:

. . . once it was dubbed pink slime, it became difficult for consumers to accept. Because of this, many fast food chains discontinued its use (it was added in a small percentage to give more burger for the dollar). Meat provided for school systems also buy beef with LFTB as a way to keep the cost of food down.

LFTB7 noted an opportunity for consumers:

In the end, this whole episode may turn into an opportunity for consumers to become more discriminating in their food choices.

Titling the blog, *The Pink Menace*, LFBL15 said this about the social impact:

And this is how it’s going to be from now on; public pressure will increasingly determine policy, and not only in food: “Before the Internet,” says Bill Marler, a food safety lawyer, “companies and governments simply made decisions, assuming the public didn’t need to know or even care what was in their food. That is no longer the case.”

LFBL14 presented information released by Food Policy Institute Director Chris Waldrop, of the Consumer Federation of America:

The concern now, Mr. Waldrop said in a telephone interview, is that producers of ground beef may substitute something else—he wasn’t sure what that might be—that hasn’t been processed to the same “level of safety” as pink slime. He also said he was worried that food companies might not be so willing to adopt “innovative technologies” if they are attacked for using them.

In the only blog to describe the essence of the term “pink slime,” LFBL 6 said this about the language used to describe the beef product:

While "pink" has a number of nice connotations in our cultural milieu (roses, cherry blossoms, and even light rosé), slime doesn't have much of an upside. In fact, there is only one side, and it is not particularly appetizing. Isn't it funny that the conventional wisdom always has the bottom line focusing on things other than words? Serious changes—the kind that can cause people to lose jobs and international corporations to alter strategy (and revenue) in mid-course—don't seem to come from mere words...do they? Cultural and economic change (because the economy is cultural—a point that economists would do well to consider more carefully than they often do) happens. Stuff happens. That's culture...and change. . . . Language and culture are mixing their ammonium hydroxide gas-magic, and it is changing bottom lines everywhere. Let's think about that, and the impact that a phrase (and its accompanying imagery—never forget that) has had on the beef industry's bottom line.

Finally, LFBL26 mentioned the effect on BPI:

The company said that it was suspending all operations at three of its four plants in Texas, Kansas and Iowa. Its headquarters in Sioux City, S.D., would remain.

LFBL1 advocated for the beef product:

As head of the USDA's public health agency, I am responsible for ensuring that the nation's commercial supply of meat, poultry, and egg products is safe for American families. . . . I believe it is important to distinguish people's concerns

about how their food is made from their concerns about food safety. The process used to produce LFTB is safe and has been used for a very long time. And, adding LFTB to ground beef does not make that ground beef any less safe to consume.

In PSBL2, the blogger talked about sources of information:

Last week, ABC News credited Gerald Zirnstein, a former United States Department of Agriculture scientist and, now, whistleblower, with revealing that 70 percent of the ground beef we buy at the supermarket contains “pink slime.” ABC News claims it was Zirnstein who, in a USDA memo, first coined the term “pink slime” and is now coming forward to say he personally won’t buy it, and insists on grinding his own hamburger. Zirnstein coined the term “pink slime” after touring a Beef Products Inc. production facility in 2002 as part of an investigation into salmonella contamination in packaged ground beef.

LFBL21 presented an industry expert’s statement about food labeling:

Secretary Tom Vilsack of the Department of Agriculture stated in a press conference held on March 28th that there are two types of government mandated labels for food products in the United States, 1. Nutritional labels that allow consumers to see caloric levels, fat content, protein content etc. . . . and 2. Warning labels that allow consumers to be cognizant of a hazard or problem with the product (for instance, alcoholic beverages are labeled to state that consumption of alcohol has been shown to be harmful to unborn babies). . . . There is no hazard associated with any ground beef so a warning label would not

be appropriate. An additional note relative to this discussion: Food products that contain “food additives” are required to carry a label, however, LFTB is NOT AN ADDITIVE and CONTAINS NO ADDITIVES. Therefore, it does not require “food additive” labeling.

However, PSBL15 presented information from another source:

Let’s break this down shall we? The article in The Huffington Post states that the ammonium hydroxide that makes the slimy beef, pink can also be used to make homemade bombs and clean your house. So, next time you’re at the stove browning up some lean beef for tacos, why not just dump a little fertilizer or cleaner to it? Your family won’t mind will they?

PSBL18 mentioned the blogger who distributed a petition to remove pink slime from school lunches, saying “Most of the media attention to pink slime was driven by a Chang.org petition started a few weeks ago by a Houston blogger, Bettina Siegel.” The Houston blogger was mentioned by LFBL13:

A petition on Change.org that calls for a ban on the use of the [beef] product in schools has garnered more than 220,000 signatures in a little more than a week.

Finally, PSBL5 mentioned celebrity chef Jamie Oliver:

After the celebrity chef Jamie Oliver went on a tirade against the filler last year, McDonald’s, Taco Bell and Burger King decided to stop padding their meat offerings with it.

Furthermore, PSBL9 said this about Oliver and social media:

This current food safety trend (which isn’t even a food safety story as no one has

been harmed by eating it) has exploded in recent weeks. This is due to the social media sphere and TV coverage of Jamie Oliver’s over-exaggerated video clip where he shows kids and moms where ground beef comes from.

About the possibility of a conspiracy driving the consumption of the beef product,

PSBL3 said this:

. . . the food-industrial complex, via their retainers in the USDA, are using poor children in the lunch program as forced (by poverty) consumers for this stuff.

Poverty; see, it works just like unemployment—keeps the supply-side economy humming.

Furthermore, about the language used to describe the beef product:

Last item, note that cute, industry-created phrase “lean beef trimmings” that turns up in all these stories (click through; it’s everywhere). . . . Each of those words —“lean” and “beef” and “trimmings”—they all sound wonderfully positive. And the mind almost magically re-assembles them into a related phrase, the even-better “trimmed lean beef.” Yum. . . . Pink slime is “lean” because the fat is centrifuged off. It’s “beef” only because it’s the unsalable leftover of cow, not mouse or turtle. And it’s “trimmings” in the sense of “here’s what fell to the bottom” after they removed everything English has a word for, like “steak” or “intestine.” . . . Those of you in grad school studying this twisted field, Uncle Straight Talk says, “Don’t drop out. There will always be work for you.

Finally, PSBL10 shared this about the possibility of conspiracy:

Despite the use of ammonium hydroxide to bath the meat scraps, outbreaks of e-coli and salmonella continue. Which means BPI's manufacturing method is not at all safe. USDA scientists warned about this, but their voice was muted by then Undersecretary of the USDA, JoAnn Smith. Guess where Mrs. Smith ended up working (as a board member) after leaving the USDA? That's right, non other than BPI!

Table 4 shows the concerns about safety, quality, or nutrition. Examples of terms or phrases used when expressing concerns about safety, quality, or nutrition include quality, value, generally regarded as safe (GRAS), nutritional merit. Concerns about safety, quality, or nutrition comprised the welfare category.

Table 4

Concerns about safety, quality, or nutrition

Exemplars

Quality

Value

Generally Regarded as Safe (GRAS)

Nutritional merit

Paste

Filler

Exemplars

Food additive

Table 4 Continued

Exemplars
Ammoniated beef
Technological marvel

Table 5 shows the concerns about the efficiency of the production methods. Examples of terms or phrases used when expressing concerns about the efficiency include no waste, food waste, and saves resources. Concerns for efficiency comprised the welfare category.

Table 5

Concerns about the efficiency of the processing methods

Exemplars
No waste
Food Waste
Saves resources

Table 6 shows the concerns about the costs of the beef product. Examples of terms or phrases used when expressing concerns about the costs include poverty, cheap prices, poor health, poor children, and less affluent. Concerns about the costs comprised the consequence category.

Table 6

Concerns about the costs of the beef product

Exemplars
Poverty
Cheap prices

Exemplars
Poor health
Poor children
Less affluent

Table 7 shows the concerns about food choices or alternatives to the beef product. Examples of terms or phrases used when expressing concerns about the efficiency food choice or alternatives include school lunch program, McDonald's, Burger King, Taco Bell, Safeway, grinding your own beef, uninformed consumer, food labels, right-to-know. Concerns about food choices or alternatives comprised the consequence category.

Table 7

Concerns about food choices or alternatives to the beef product

Exemplars
School lunch program

Table 7 Continued

Exemplars
McDonald's
Burger King
Taco Bell
Safeway

Exemplars
Grinding your own beef
Uninformed consumer
Food labels
Right-to-know

Table 8 shows the concerns about media coverage or sources of information. Examples of terms or phrases used when expressing concerns about media coverage or sources of information include media criticism, Jamie Oliver, media hype, sensationalism, and public outcry. Concerns about media coverage or sources of information comprised the media category.

Table 8

Concerns about media coverage or sources of information

Exemplars
Media criticism
Jamie Oliver
Media hype
Sensationalism
Public outcry

Table 9 shows the concerns about safety, quality, or nutrition. Examples of terms or phrases used when expressing concerns about safety, quality, or nutrition include quality, value, generally regarded as safe (GRAS), and nutritional merit.

Table 9

Concerns about reasons for blogging

Exemplars
Seek the facts
Know the experts

Table 10 shows the concerns or doubts about the government, the food industry, or the food system. Examples of terms or phrases used when expressing concerns about government, food industry, or food system.

Table 10

Concerns about government, food industry, or food system

Exemplars

USDA

BPI

Food industry experts

Corporate lobbyists

Special interest groups

CHAPTER V

DISCUSSION

The bloggers in the sample of this study expressed positive and negative opinions about LFTB, and they showed concerns about welfare, expertise, consequences, and conspiracy. Of Jones and Alony's (2008) seven motivations to blog—self-expression, self-recognition, social contact, introspection, knowledge/interests, documentation, and artistic activity—two were most evident: need for self-expression and academic needs for knowledge and interests.

What began as a nickname shared in an email message morphed into a sequence of events that affected the U.S. food system and its consumers. The media coverage of pink slime resulted in controversy about the safety and quality of U.S. beef processing and beef products. In other words, the media presented an agenda that led consumers to think about LFTB and what to think about it. The information first reported by various media spread via other forms of media such as bloggers, who acting citizen journalists shared positive and negative opinions and concerns about welfare, consequences, expertise, and conspiracy.

The information about pink slime and consumer responses resulted in economic and social consequences, affecting schools, retailers, producers, prices, and food labeling (Greene, 2012, p. 6–10). On March 15, 2012, while ensuring the safety of LFTB, the USDA announced it would offer more choices to schools in the National School Lunch Program, in response to requests from school districts across the country (U.S.

Department of Agriculture, 2012). Greene (2012) reported “In a news conference on March 29, 2012, Secretary of Agriculture Vilsack affirmed the safety and benefits of LFTB, but also said that USDA had to listen to its customers” (p. 6).

After the initial media coverage on pink slime, grocery stores began reconsidering their commitment to ground beef made with LFTB. On March 22, 2012, grocery chains Safeway, SuperValu, and Food Lion, said they would discontinue purchasing ground beef with LFTB. Then most grocery chains such as Kroger, BI-LO/Winn Dixie, Giant, and Hy-Vee stopped selling ground beef with LFTB. Hy-Vee announced their decision was based on consumer concerns for LFTB (Busse, 2012).

Due to decreased demand of LFTB, Beef Products Inc. (BPI) stopped production for 60 days and eventually shut down three beef-processing facilities in Texas, Kansas, and Iowa; one facility in South Dakota remained opened but with limited production. Approximately 650 to 700 people were expected to have lost their jobs (Burgdorfer, 2012). Furthermore on April 2, 2012, Pennsylvania-based AFA foods, a ground beef processor operating five facilities, filed for bankruptcy (Greene, 2012). A BPI spokesman said the effects of the pink slime controversy were from the misinformation about LFTB (Burgdorfer, 2012). Also on April 2, 2012, regarding package labels, the USDA reported that companies had requested permission to voluntarily include LFTB labels on ground beef; the labels would be certified by the USDA. BPI described the decision to label LFTB as a necessary step in restoring consumer confidence (Greene, 2012).

Concerns in the Media

The concerns of the bloggers were found in traditional news stories on the Internet. The following stories are several examples where consumers could have encountered information about pink slime: *Is it Time to Embrace Pink Slime* by LeVaux (2012); *Can Your Kid's Cafeteria Now Opt out of "Pink Slime"?* by Philpott (2012); *How Processed Beef Trimmings Got Rebranded, again and again and again* by Engber (2012). Levaux (2012) began with this:

If there's one thing America can agree on at the moment, it's that "pink slime" is scary. The hamburger filler made from processed beef trimmings has been in use for decades, but now, thanks to social media-fueled campaigns and traditional media coverage from Fox News to MSNBC, we're suddenly terrified of the stuff. Is pink slime really any worse than pink cylinders like hot dogs, or yellow nuggets of mechanically separated poultry? Probably not. (para. 1)

From that paragraph, users may conclude that the name "pink slime" is indeed a scary nickname, but the beef product was in the food system for 20 years and unknowingly consumed by millions of carnivores. This duality suggests that consumers were uninformed or misinformed, which led the bloggers, as citizen journalists, to express concerns about food labeling policy and conspiracies among government agencies and private businesses such as Beef Product, Inc.

Furthermore, PSBL7 expressed skepticism about welfare and conspiracy:

. . . We, as consumers, as school officials, and as parents, have no way of

knowing if “pink slime” or “lean finely textured ground beef” is on the menu for one simple reason: paid corporate lobbyists convinced government officials that we don’t need to know, and not, I suspect, because they had our best interests at heart. Someone, somewhere, thought that we wouldn’t buy a product labeled “ground beef, with added connective tissues, fatty trimmings, and ammonia” — not for ourselves, and not for our schools.

The blogger expresses concern for not knowing what is in the food served at schools.

The blogger suspects that not knowing information about the food is because of the efforts by “paid corporate lobbyists.”

Philpott (2012) focused on the National School Lunch Program, asking “So your kid's school cafeteria can now opt out of the stuff starting now, right? Not so fast” (para.

2). Philpott went on to describe the reasons for BPI’s success:

And here's the rub: pink slime's maker, Beef Products International, has been so successful in getting its product into the industrial ground beef chain that there's no easy way of getting it out. The company claimed several years ago that pink slime is mixed into 70 percent of the ground beef consumed in the country. That number has likely dropped since McDonalds and other fast food chains have stopped using it, but it remains deeply embedded in the production chain that creates cheap ground beef for supermarkets, schools, and other institutions. (para. 6).

Philpott refers to BPI as Beef Products International—the inaccurate name of the company; the name is Beef Products Incorporated. Despite the inaccurate reference,

Philpott's information mentions fast food, schools, and other institutions; these things were also mentioned by the bloggers. However, what are the "other institutions"? This question is left unanswered, leaving the user reading Philpott's story to wonder and perhaps seek more information on the Internet, at which point the user might encounter information countering Philpott's opinions. Moreover, Philpott's negatively skewed references to "industrial ground beef" and "cheap ground beef" reflect the bloggers' concerns about welfare, consequences, and conspiracy.

Engber (2012) framed the pink slime controversy in food labeling, arguing that consumer concerns over what was in the beef product led to issues with the beef product. Engber (2012) said, "The story of this activist rebranding—from lean finely textured beef to pink slime—reveals just how much these labels matter" (para. 2). The blogger of LFBL10 expressed a desire for information: "I want to know what's in the food I eat. I don't think that's an unreasonable request, and a lot of consumers would agree. They want to eat food that's purely made and free of harmful additives." LFTB is claimed to be 100% beef, and the labeling of the beef product as something other than beef may further confuse consumers to think that there is a difference in the safety and quality of the food.

No mention of celebrity chef Jamie Oliver was found in the three previously described news stories, but bloggers mentioned Oliver. For example, LFBL17 stated in the first paragraph "Lovingly called 'pink slime,' it's been the recent subject of celeb-chef Jamie Oliver, fast food, school lunches, and of course, our nightmares." LFBL 4 said this about the chef: "Celebrity chef, Jaime [sic] Oliver has falsely reported about

this product in the past, too. He is so off-base and his approach is so theatrical, I couldn't even bear to link to his video." PSBL8 said this:

This current food safety trend (which isn't even a food safety story as no one has been harmed by eating it) has exploded in recent weeks. This is due to the social media sphere and TV coverage of Jamie Oliver's over-exaggerated video clip where he shows kids and moms where ground beef comes from.

Finally, PSBL15 praised the celebrity chef for his demonstration:

This pink slimy beef was rejected by McDonald's and other fast food joints, but schools seem to be okay with it. There is definitely something wrong with this picture! Do we not live in 2012? How can this be allowed? That's it, get me Mr. Jamie Oliver on the phone, I'm joining his team.

The fact that bloggers mentioned the celebrity chef, who referenced pink slime one year prior, who may have limited knowledge about the quality of the beef product and the processing methods, shows that virtually anyone, with any factual or exaggerated claims, can express an opinion or concern about food on the Internet and the Blogosphere.

Conclusions

In the virtual classroom of the Internet, blogger citizen journalists passed information containing opinions and concerns about pink slime. The bloggers in this study's sample perpetuated the agenda set by the media, expressing their opinions and concerns about the beef product known as pink slime, or LFTB, and many alternative names for the beef product. This volleying of information about the beef product created a learning environment filled with contradictions, misinformation, and exaggerated

claims. A conceptual model in Figure 1 shows the interaction between motivations for blogging and agenda-setting theory. Bloggers in this study were motivated to tell readers what to think about and how to think about it. The bloggers shared opinions and concerns about the 2012 pink slime incident. As a result of bloggers' actions, the 2012 pink slime incident was framed positively and negatively, and bloggers' concerns were accessible through a virtual classroom otherwise known as the Internet.

The bloggers competed against each other, whether they realized it or not, as if the media coverage on the beef product had sparked a war between Us and Them, Fact and Fear, and He said vs. She Said. From the findings of this study, an eighth motivation to blog emerged: a need for competition. This need for competition is closely tied to the need for self-expression and the need for knowledge and interests. Competing to spread information about food-related issues leads to consequences, as shown through the pink slime controversy, for the U.S. food system. Therefore, constituents of the food system, e.g. the USDA, American Farm Bureau, AgChat Foundation, academia, commodity groups, and consumer groups should consider blogs as viable sources of information that have legitimate social and economic consequences.

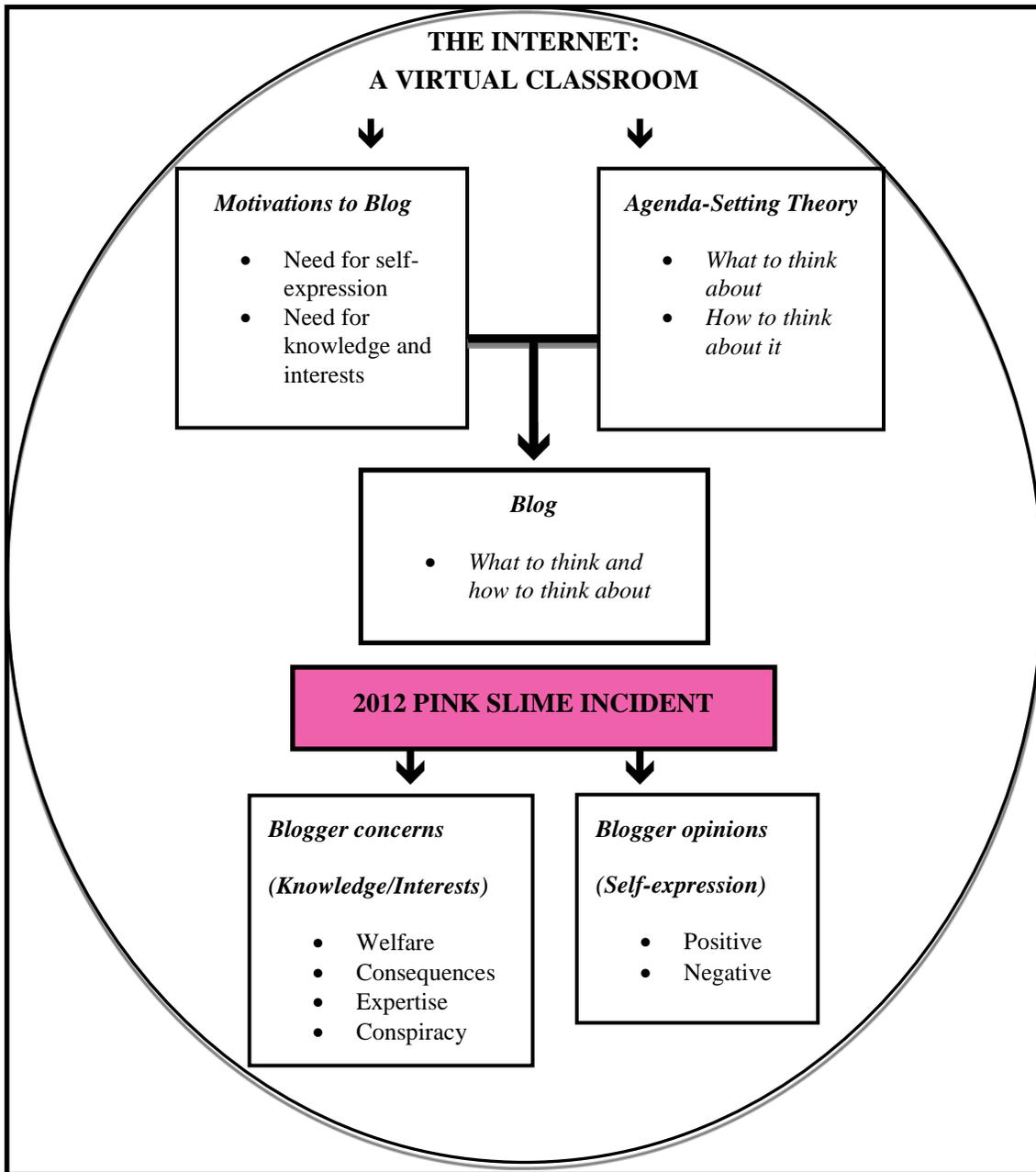


Figure 1 *Conceptual model of the 2012 pink slime incident*

Another conclusion of this study is that the Internet is breeding ground for controversies, whether warranted or not. The pink slime controversy began because one person nicknamed a food product that, when grabbed by media outlets and thrust into public spotlight, became an overnight superstar. The bloggers in this thesis participated in dialogue about pink slime and echoed what mainstream news outlets pushed into the headlines. The findings of this study suggest the need for conversations about government conspiracy in the food system, right-to-know about food and precise food labeling, and who or what to believe when consuming information about the safety and quality of food in the U.S.

Recommendations

It is suggested that researchers continue conducting qualitative analysis on food-related issues in the media, both domestic and international. The world's population is connected through food, and this connection warrants more qualitative research to understand food cultures and their evolving opinions and concerns about food and food production.

1. Researchers interested in discussions about food-related issues should consider blogs and other social media. Social media allows people to express unfiltered opinions and concerns, with little to no repercussions falling directly back on those voicing their positions. The activism of bloggers is an interesting phenomenon, and results from future studies might help food producers and government to understand the importance of transparency and accuracy in their communications.

2. Researchers should continue to investigate motivations for blogging.

Bloggers should be asked questions about their purpose for blogging, about what they hope to gain, and about what they expect their readers to gain. Do they consider themselves citizen journalists? might be one research question. The results from each study could provide researchers directions to head in search for answers to their future questions concerning the media, the Internet, blogs, and the consequences of sharing information and misinformation about food.

3. Researchers are encouraged to analyze different features of blogs. For

example, in addition to text (i.e. words), pictures and other visual imagery supplement a blog's text. The comment sections of blogs and other social media is another learning ecology where insight can be obtained and analyzed. Furthermore, the Internet is filled with visual imagery conveying food-related messages about genetically modified organisms (GMOs), animal (livestock) welfare, environmental issues, and feeding a growing world population. There are many opportunities for researchers to understand different discourses happening on the Internet.

4. Researchers should examine young people's reactions to food-related issues.

High school students and college students work to become part of the various industries throughout the world, and their decisions for doing things are prompted by information they encounter offline and, in the 21st Century, online.

5. Researchers should team with researchers from different disciplines. Contact

a communications scholar, a sociology scholar, and a food systems management scholar. Contact non-scholars as well. Build a network of scholars and non-scholars from which

to draw information such as experiences and opinions. In the world connected by the Internet and common goal to build knowledge about life and what is in our food, the experiences and opinions of people from different life perspectives could enhance future research about food-related issues.

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APPENDIX A

These blogs were collected using a keyword search for “pink slime.” These blogs are referred in the text as PSBL (Pink Slime BLog):

1. Guest Blogger. (2012, March 24). As “pink slime” controversy rolls, Colorado districts see red over the beef filler in school lunches [Web log post]. Retrieved from <http://www.milehighmamas.com/blog/2012/03/24/as-pink-slime-controversy-roils-colorado-districts-see-red-over-the-beef-filler-in-school-lunches/>
2. Tanya Jolliffe. (2012, March 19). The real deal with ‘pink slime’ [Web log post]. Retrieved from http://www.sparkpeople.com/blog/blog.asp?post=whats_the_slime_behind_textured_beef
3. Gaius Publius. (2012, March 16). What is “pink slime”? You eat it in your burgers [Web log post]. Retrieved from <http://americablog.com/2012/03/what-is-pink-slime-you-eat-it-in-your-burgers.html>
4. Steven Aftergood. (2012, April 10). Pink slime, and more from CRS [Web log post]. Retrieved from http://blogs.fas.org/secrecy/?s=Pink+Slime&submit.x=-1285&submit.y=-81&post_type=post
5. Steve Shenk. (2012, March 16). Attack of the pink slime [Web log post]. Retrieved from <http://www.efoodsdirect.com/blog/attack-of-the-pink-slime/>

6. K.J. Dell'antonia. (2012, March 9). Will there be “pink slime” in your child’s school lunch? [Web log host]. Retrieved from <http://parenting.blogs.nytimes.com/2012/03/09/will-there-be-pink-slime-in-your-childs-school-lunch/>
7. WahingtonsBlog. (2012, March 11). 70% of all ground beef contains “pink slime” ... and USDA bought 7 million pounds of the stuff for school lunches [Web log post]. Retrieved from <http://www.washingtonsblog.com/2012/03/70-of-all-ground-beef-contains-pink-slime-and-usda-bought-7-million-pounds-of-the-stuff-for-school-lunches.html>
8. admin. (2012, March 21). Who tells America what’s safe to eat? Pink slime story sheds light on social media’s role [Web log post]. Retrieved from <http://www.fdaimports.com/blog/pink-slime-social-media-role-food-safety/>
9. Hemi Weingarten. (2012, March 10). Pink slime, rejected by McDonald’s, goes to school lunches instead [Web log post]. Retrieved from <http://blog.fooducate.com/2012/03/10/pink-slime-rejected-by-mcdonalds-goes-to-school-lunches-instead/>
10. Jill Ettinger. (2012, March 12). Controversy over ‘pink slime’ sizzling: 70 percent of ground beef is slimed [Web log post]. Retrieved from <http://www.organicauthority.com/blog/organic/70-percent-of-ground-beef-is-pink-slime-school-lunche/>

11. Andrew Maynard. (2012, April 4). Pink slime and ammonia consumption – the numbers [Web log post]. Retrieved from <http://umrscblogs.org/2012/04/04/pink-slime-and-ammonia-consumption-the-numbers/>
12. Mackicayloma. (2012, March 26). Avoid pink slime! 9 ground chicken recipes to try [Web log post]. Retrieved from <http://www.babble.com/best-recipes/avoid-pink-slime-9-ground-chicken-recipes-to-try/>
13. Laura Weisman. (2012, March 19). Who sells meat with pink slime? Here's the list [Web log post]. Retrieved from <http://blog.seattlepi.com/hottopics/2012/03/19/who-sells-meat-with-pink-slime-here%E2%80%99s-the-list/>
14. Didi O'Neil. (2012, March 20). Oxymoron diaries – pink slime [Web log post]. Retrieved from <http://oxymorondiaries.blogspot.com/2012/03/oxymoron-diariespink-slime.html>
15. MandyCheney. (2012, March 6). Pink slime: School lunches just took a major turn for the worse [Web log post]. Retrieved from <http://www.babble.com/kid/pink-slime-school-lunches-just-took-a-major-turn-for-the-worse/>
16. Cathy Jett. (2012, March 23). Grocers say they'll stop carrying 'pink slime' [Web log post]. Retrieved from <http://news.fredericksburg.com/whatsinstore/2012/03/23/grocers-say-they-stop-carrying-pink-slime/#>

17. WebMD Blogs. (2012, April 19). Mom on a mission: Dumping “pink slime” [Web log post]. Retrieved from <http://blogs.webmd.com/health-ehome/2012/04/mom-on-a-mission-dumping-pink-slime.html>
18. Aziz Poonawalla. (2012, March 18). Pink slime is not Halal [Web log post]. Retrieved from <http://blog.beliefnet.com/cityofbrass/2012/03/pink-slime-is-not-halal.html>
19. David Sconka. (2012, March 11). Pink slime, ammonia, and feces! A look at American-made meat products [Web log post]. Retrieved from <http://www.naturallyengineered.com/pink-slime-ammonia-and-feces-a-look-at-american-made-meat-products/>
20. Claire. (2012, March 28). What all the hype – pink slime? [Web log post]. Retrieved from <http://www.iowacornstalk.com/2012/03/whats-all-hype-pink-slime.html>
21. Lyall Russell. (2012, March). Pink slime, tasty right? [Web log post]. Retrieved from <http://www.lyallrussell.com/2012/03/pink-slime-tasty-right.html>
22. Sarah LeTrent. (2012, March 9). Does your ground beef contain ‘pink slime’? [Web log post]. Retrieved from <http://thechart.blogs.cnn.com/2012/03/09/does-your-ground-beef-contain-pink-slime/>
23. AmasianV. (2012, March 20). Pink slime: My beef with Jamie Oliver and food blogs [Web log post]. Retrieved from <http://amasianv.wordpress.com/2012/03/20/pink-slime-o157h7-my-beef-with-jamie-oliver-and-food-blogs/>
24. Elissa. (2012, March 13). No “pink slime” for me! [Web log post]. Retrieved from <http://blog.ultimatefatburner.com/no-pink-slime-for-me/>

APPENDIX B

These blogs were collected using a keyword search for “lean finely textured beef.” These blogs are referred in the text as LFBL (Lean Finely BLog):

1. Dr. Elisabeth Hagen. (2012, March 22). Setting the record straight on beef [Web log post]. Retrieved from <http://blogs.usda.gov/2012/03/22/setting-the-record-straight-on-beef/>
2. Spence Cooper. (2012, March 12). USDA scientist: Our ground beef is a “fraudulent lie” [Web log post]. Retrieved from <http://blog.friendseat.com/usda-scientist-our-ground-beef-is-a-fraudulent-lie/>
3. mwb124. (2012, March 21). Lean finely textured beef (aka pink slime) is safe [Web log post]. Retrieved from <http://pennstatefoodsafety.blogspot.com/2012/03/lean-finely-textured-beef-aka-pink.html>
4. JanealY. (2012, March 9). Mom at the meat counter [Web log post]. Retrieved from <http://momatthemeatcounter.blogspot.com/2012/03/we-are-not-really-talking-about-pink.html>
5. Joel. L. Greene. (2012, April 17). Lean finely textured beef: The “pink slime” controversy [Web log post]. Retrieved from <http://agriculture-legislation.blogspot.com/2012/04/lean-finely-textured-beef-pink-slime.html>
6. Round and Square. (2012, March 30). Just do it over (7)—lean finely textured beef [Web log post]. Retrieved from <http://robert-lafleur.blogspot.com/2012/03/just-do-it-over-7lean-finely-textured.html>

7. Timi Gustafson RD. (2012, March 13). Growing outrage over “pink slime” in school lunches [Web log post]. Retrieved from <http://blog.seattlepi.com/timigustafsonrd/2012/03/13/growing-outrage-over-%E2%80%9Cpink-slime%E2%80%9D-in-school-lunches/>
8. Kelsey Pope. (2012, March 30). “Pink slime” not eye-appealing? Neither is caviar [Web log post]. Retrieved from <http://agonthe4front.blogspot.com/2012/03/pink-slime-not-eye-appealing-neither-is.html>
9. foodsafeguru. (2012, March 27). Statement of Chris Waldrop, consumer federation of America’s director of food policy on lean finely textured beef [Web log post]. Retrieved from <http://blog.usfoodsafety.com/2012/03/27/statement-of-chris-waldrop-consumer-federation-of-americas/>
10. Jill Koegel. (2012, March 26). The surprising truth about “pink slime” [Web log post]. Retrieved from <http://blogs.livewellnebraska.com/2012/03/26/the-surprising-truth-about-pink-slime/>
11. Jill Ettinger. (2012, March 22). Suspended! USDA gives outraged schools a ‘pink slime’ meat alternative [Web log post]. Retrieved from <http://www.organicauthority.com/blog/organic/suspended-usdas-pink-slime-meat-taken-off-school-lunch-menus/>
12. Carly Thurman. (2012, April 11). The pink slime controversy [Web log post]. Retrieved from <http://myilluminateblog.com/the-pink-slime-controversy/>
13. Eddie Gehman Kohan. (2012, March 15). After firestorm of ‘pink slime’ criticism, USDA alters school lunch policy for ground beef–update [Web log post].

Retrieved from <http://obamafoodorama.blogspot.com/2012/03/after-firestorm-of-pink-slime-criticism.html>

14. Ann Carrns. (2012, March 29). What might replace 'pink slime'? [Web log post].

Retrieved from <http://bucks.blogs.nytimes.com/2012/03/29/what-might-replace-pink-slime/>

15. Mark Bittman. (2012, April 3). The pink menace [Web log post]. Retrieved from

<http://opinionator.blogs.nytimes.com/2012/04/03/the-pink-menace/>

16. Andrew C. Revkin. (2012, April 1). Why I'm o.k. with 'pink slime' in ground beef

[Web log post]. Retrieved from

<http://dotearth.blogs.nytimes.com/2012/04/01/why-im-o-k-with-pink-slime-in-ground-beef/>

17. Laura Hanefeld. (2012, March 23). Safeway pulls the plug on "pink slime" textured beef Retrieved from

http://blogs.phoenixnewtimes.com/bella/2012/03/safeway_pulls_the_plug_on_pink.php

18. Robert Paterson. (2012, March 15). USDA to give schools more ground beef choices after outcry over 'pink slime' [Web log post]. Retrieved from

http://smartpei.typepad.com/robert_patersons_weblog/2012/03/usda-to-give-schools-more-ground-beef-choices-after-outcry-over-pink-slime.html

19. Cassie. (2012, March 12). "Pink slime": Neat or nasty? [Web log post]. Retrieved from <http://foodthinkforum.blogspot.com/2012/03/pink-slime-perverse-or-prudent.html>

20. The Blog Fodder. (April 23, 2012). Lean fine textured beef [Web log post]. Retrieved from <http://dablogfodder.blogspot.com/2012/04/lean-fine-textured-beef.html>
21. Anne Burkholder. (2012, April 3). Lift up the lean beef! [Web log post]. Retrieved from <http://feedyardfoodie.wordpress.com/2012/04/03/lift-up-the-lean-beef/>
22. Purdue Animal Sciences. (2012, March 16). NCBA Statement of USDA announcement on lean finely textured beef [Web log post]. Retrieved from <https://purduephil.wordpress.com/2012/03/16/ncba-statement-on-usda-announcement-on-lean-finely-textured-beef/>
23. Rebecca. (2012, April 12). What are ‘lean finely textured beef trimmings’ doing in my supper? [Web log post]. Retrieved from <http://tjwh617dotcom.wordpress.com/2012/04/12/what-are-lean-finely-textured-beef-trimmings-doing-in-my-supper/>
24. Liz Carter. (2012, March 13). Pink slime aka “lean finely textured beef (LFTB)” [Web log post]. Retrieved from <http://lisbethcarter.wordpress.com/2012/03/13/pink-slime/>
25. christofpierson. (2012, March 30). Where’s the lean, finely textured beef? [Web log post]. Retrieved from <http://tragicfarce.com/2012/03/30/wheres-the-lean-finely-textured-beef/>

26. John. (2012, March 27). Lean finley textured beef... aka pink slime [Web log post].

Retrieved from <http://thecookinginn.wordpress.com/2012/03/27/lean-finely-textured-beef-aka-pink-slime/>