



Exploring Agriculturalists' Use of Social Media for Agricultural Marketing

Danielle White

Courtney Meyers

David Doerfert

Erica Irlbeck

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Exploring Agriculturalists' Use of Social Media for Agricultural Marketing

Danielle White, Courtney Meyers, David Doerfert and Erica Irlbeck

Abstract

The Internet has had a significant impact in how agriculturalists get their information and how they communicate with consumers. The use of user-generated media, especially social media, now provides agriculturalists free and practically instantaneous channels through which to engage with their audience members. The purpose of this study was to explore agriculturalists' use of social media for agri-marketing. This study used a qualitative research approach consisting of in-depth interviews with four agriculturalists who met certain criteria: an individual (1) working in agriculture, (2) using several social media platforms, and (3) using social media to market his/her own agricultural operation. Analysis of the interview transcripts identified seven emergent themes to address the three research objectives. Findings indicated participants became active using social media to combat dominant negative messages about production agriculture. Participants also discussed how they manage their social media presence and balance responsibilities. Overall, they were positive about the use of social media for their own operations and for the broader agricultural community. Additional analysis indicated some gender differences in regard to social media use. Recommendations for both practitioners and researchers are provided to further explore social media use in agriculture.

Key Words

Agriculture, social media, advocacy, agricultural marketing, qualitative

Introduction/Need for the Study

Until the mid-19th century, most agricultural information was communicated from farmer to farmer by word of mouth (Paskoff, 1990). At the end of the last century, agriculturalists' top three sources of information were radio, mail, and face-to-face communication (American Farm Bureau Federation, 2013). Although these forms of communication are still important, the Internet has had a greater influence on U.S. agriculture than any other communication channel during the past century; its two main impacts being how agriculturalists get their information and the ability of agriculturalists to communicate with the consumer (American Business Media Agri Council, 2010).

Internet adoption and the introduction of social media have changed how many individuals seek and receive information. Henroid, Ellis, and Huss (2003) noted the Internet has made the process of information retrieval easier and is often seen as a reliable source of information because of the readiness of the information. The rapid rate of Internet adoption of the 1990s (Rogers, 2003) is similar to the rapid rate of adoption of social media today (Hoffman, 2009). Kabani (2010) referred to social media tools as online systems of websites whose main objectives include interacting, socializing, building, and maintaining relationships. Some forms of social media tools include Facebook, Twitter, LinkedIn, YouTube, and blogs (Kabani, 2013).

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From 2005 to 2009, participation in social networking has more than quadrupled (Jones & Fox, 2009). A Pew Research Center (2012) study found 67% of all Internet users in the United States use at least one social media site; 83% of people between the ages of 18 and 29 use social media sites. Women are more likely to use social media than men, and Internet users are more likely to use social media if they reside in an urban area as opposed to rural (Pew Research Center, 2012). The American Farm Bureau Federation (2013) reported that out of 92% of farmers and ranchers ages 18-29 surveyed who use computers, 82% regularly use some form of social media.

As Americans continue to move away from rural areas, their understanding of agriculture will continue to decrease (Elliot, 1999). The evolving landscape of agriculture has brought about a shift in consumer demands and a disconnect between agricultural producers and consumers that continues to grow (Perkins, 2010). Consumers now put more emphasis on wanting food that is convenient, ethically raised, and healthy; they want to know where their food is coming from, how it was raised, and how it got to their plate (U.S. Department of Agriculture, 2013). To meet these demands, food producers and consumers have had to forge new relationships, and social media platforms have provided a way to do so. For U.S. agriculture to continue to be successful in the global agricultural market, it is necessary for U.S. agriculturalists to understand who and where their consumers are and how to please them (Allen, 1993). It is also important for U.S. agriculturalists to be familiar with the methods through which consumers gain information and make decisions regarding agriculture (Elliot & Frick, 1995). Agriculturists — producers, communicators, or employees — are successfully participating in two-way communication with consumers via social media. Exploring how these communication efforts began and are sustained will provide more insight to inform additional communication efforts through social media.

Literature Review

Social media created an environment for individuals to interact with each other in a two-way communication pattern, allowing for the creation and maintenance of relationships (Rajagopalan & Subramani, 2003). This form of communication can benefit the information sender because it can affect how individuals react to messages. In an era of increased demand for transparency and authenticity, social media is rapidly creating a new standard for communication (Kaizen Digital Marketing, 2011). “The immediacy and accessibility of social media makes it an ideal medium for transparency, whether intended or not” (Prescient Digital Media, 2013, para. 1).

Increased participation and interaction of users is taking place on the Internet as users create, communicate, and express themselves through the development of content. User-generated content is “content that comes from regular people who voluntarily contribute data, information, or media that then appears before others in a useful or entertaining way, usually for the web” (Krumm, Davies, & Narayanaswami, 2008, p. 10). With the recent growth of social media, people all over the world are connecting through common interests more quickly, more inexpensively, and with less reservation (Anderson-Wilk, 2009). This trend allows users to keep in contact with others they might not normally be able to because of time and distance issues. Social media allows for users to be more involved in an activity than has previously been possible through one-way communication channels (Anderson-Wilk, 2009).

As audiences become more dependent on the Internet for information, it is becoming more important for businesses to have a strong online presence (Rigby, 2008). One way this presence can be strengthened is through the use of social media platforms. Social media tools represent a revolutionary new trend for any business (Kaplan & Haenlein, 2010) and are now an important and integral

part of modern day business operations (Kabani, 2013). Marketing has changed drastically with the introduction of social media (Smith & Zook, 2011). The American Marketing Association (2014) defined marketing as the “activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (para. 2). This definition extends to marketing within the agricultural industry that “includes a wide spectrum of decisions and activities that center on effectively reaching your customers, prospects, and public, and providing them with information about your products or services that satisfy their needs and wants” (Barnard, Akridge, Dooley, & Foltz, 2012, p. 123).

The tools of social media allow the consumer to become the center of an organization and give marketers innovative ways to engage with them. This new opportunity also allows marketers to create stronger brands through social media and ultimately build a better business because brands help create a relationship between businesses and their audiences (Smith & Zook, 2011). Agri-businesses have incorporated social media as a tool that is transforming communication throughout the industry (Baumgarten, 2012).

Within agriculture, organizations such as the AgChat Foundation and American Farm Bureau Federation have encouraged the use of social media use. The AgChat Foundation serves as an educational resource to help farmers and ranchers learn the skills necessary to participate in communication via social media channels (AgChat Foundation, 2014). The American Farm Bureau Federation has encouraged social media use, claiming that through the use of social media, farmers and ranchers can shape the future of their business (American Farm Bureau Federation, 2011). Katims (2010) reported a growing number of U.S. farmers use social media as a way to promote the agricultural industry by directly reaching the consumer. Farmers use social media on a personal level to tell their stories, give updates, promote their products and answer consumer questions (Baumgarten, 2012). Farmers believe social media is an effective rebuttal to the mixed-marketing messages targeted against production agriculture (Katims, 2010).

Interactivity is the main way the Internet facilitates consumers' active participation in online communities (Yoon, Choi, & Sohn, 2008). However, these interactions may be experienced differently by males and females because gender differences impact personal identity (Manago, Graham, Greenfield, & Salimkhan, 2008). Manago et al. (2008) stated women tend to be more concerned with connective communication strategies, whereas men tend to use more power-oriented communication strategies. Women provide more information in general while men and women are both more likely to provide information to women than men. Muscanell and Guadagno (2012) found women used social networking sites to maintain existing relationships while men were more likely to use the sites to network and establish new relationships. While researchers have noted gender differences for general Internet use, this individual difference variable is also related to how social networking sites are used (Muscanell & Guadagno, 2012).

Theoretical Framework

The theoretical framework for this study drew upon the uses and gratifications theory and the diffusion of innovations theory. The uses and gratifications theory seeks to understand why people use certain media channels to satisfy personal needs (Katz & Blumler, 1974). This theory suggests media consumers are not passively participating but actively partaking in media selection. This theory has been used to study various types of mass media forms including television, radio, print media, music, news, and movies (Rubin, 2009). Beyond these traditional forms of media, uses and gratifications theory has been applied in studies of online communication technologies. Ruggiero (2000) foresaw

the Internet “will lead to profound changes in media users’ personal and social habits and roles” (p. 28). The characteristics of the Internet and user-generated media make uses and gratifications an ideal theory through which to examine how emerging technologies are selected and utilized. Rubin (2009) stated this theory “will continue to be an invaluable approach as we seek to understand the evolving, interactive digital environment” (p. 155).

One particular area uses and gratifications theory is currently being applied is the study of user-generated media (UGM), which are the new media that contain content created by individuals outside of their professional responsibilities and made widely available online (Shao, 2009). These media include social networking platforms, podcasting, and digital video. Individuals receive various gratifications from using UGM, specifically to meet entertainment, information, and mood management needs; to interact with content and other individuals; and to create their own content to achieve self-expression and self-actualization (Shao, 2009). Nardi, Schiano, Gumbrecht, and Swartz (2004) used in-depth interviews to identify five main gratifications met by user-generated content: recording one’s life, giving options, articulating sincerely felt emotions, expressing thoughts through writing, and establishing and sustaining relationships.

The diffusion of innovations theory looks at how, why, and at what rate innovations spread through social systems (Rogers, 2003). Rogers (2003) defined diffusion as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). This theory seeks to explain how ideas and technologies, such as social media, spread through social systems. Although social media is a new division of media, several studies have been conducted to explore how this innovation has diffused. Avery et al. (2010) examined the use of social media among public relations practitioners within the medical industry in communities of various sizes and found the most common barriers for adoption were lack of trialability and observability. Waters (2010) explored the use of social media among nonprofit organizations. He found while some nonprofits embrace social media technologies, most are waiting to see how other nonprofit organizations use the tools before they adopt. Doerfert, Graber, Meyers, and Irlbeck (2012) researched Texas agricultural producers’ use of traditional and social media and found the producers to be in the beginning stages of adoption, according to Rogers’ (2003) model.

Purpose and Objectives

The second priority of The National Research Agenda (NRA): Agricultural Education and Communication 2011-2015 (Doerfert, 2011) is concerned with new technologies, practices, and product adoption decisions consumers undergo. One of the objectives within this priority area is to “determine the types of knowledge, skills, environment, and support systems that facilitate decision-making and adoption processes by individuals and groups” (p. 8). The purpose of this study was to explore agriculturalists’ use of social media for agri-marketing. The following research objectives were used to guide the study:

1. Explore participants’ motivations for becoming involved with social media.
2. Describe participants’ administration of their social media presence.
3. Explain participants’ opinions about social media use for their personal agri-marketing efforts.
4. Identify participants’ appraisal of future social media use in agri-marketing efforts.

Methods

A qualitative research design was used to accomplish the research objectives because qualitative

research has the ability to explore individuals' lives, experiences, actions, and feelings as well as social movements and social phenomena (Strauss & Corbin, 1990). The particular qualitative design utilized was a phenomenological study, which is designed to describe "the meaning of the lived experience for several individuals about a concept or the phenomenon" (Creswell, 1998, p. 51). The phenomenon under study was agriculturalists' use of social media for agri-marketing purposes.

To gain insightful information about the phenomenon, participants were purposively selected to have the following characteristics: an individual (1) working in agriculture, (2) using several social media platforms, and (3) using social media to market his/her own agricultural operation. Any individuals who work in public relations or manage social media accounts for an organization were excluded, even if it was an agricultural organization. These participants were identified from a review of the AgChat Foundation website to identify individuals actively involved in agriculture and social media. Once 10 potential participants were identified, they were contacted to seek participation in the study; four agreed. These 10 participants represented various agricultural commodities and met all the outlined characteristics to be included in the study. Multiple attempts were made to contact all potential participants, but they either did not reply or said they could not complete the interviews due to time constraints. Morse (2000) noted the ideal number of participants in a qualitative study depends on a few factors such as quality of the data and the amount of information each participant provides. Fewer participants are needed in cases where more rich information is obtained from each participant (Morse, 2000). After only four interviews, themes and statements were becoming repetitive, and the researchers knew they were getting the rich description of the phenomenon they were seeking.

After receiving the university's Human Research Protection Program approval, the lead researcher conducted semi-structured interviews via telephone in February 2013. Semi-structured interviews are beneficial when the researcher knows enough about the phenomenon to develop questions in advance but not enough to be able to anticipate the participants' answers (Morse & Richards, 2002). The interview questions addressed the individuals' motivations to start using social media; utilization of social media; opinions, attitudes and beliefs of social media use; and assessment of his or her social media use. The four participants represented the dairy industry (three dairy cattle operations and one dairy goat operation). With the consent of all participants, interviews were audio recorded and detailed notes were taken to ensure accuracy in transcription.

To ensure anonymity, each participant was assigned a pseudonym prior to the researchers analyzing data and writing the findings. After transcribing the interviews verbatim, the lead researcher used NVivo 9.0 data management software to help analyze, store, and organize the data. The researcher read the transcripts and coded information into common themes. The interviews were analyzed using the constant comparative method (Glaser & Strauss, 1967). Each of the four interviews was first read then the information was coded to identify emergent, dominant themes. Initial themes were identified from the first transcription; from there, remaining information was placed into the previously determined themes that emerged or additional themes were created as needed. As themes began to emerge from the data, they were compared to other themes to help find relationships in the data collected. The guidelines established by Lincoln and Guba (1985) were used to maintain trustworthiness: credibility, transferability, dependability, and confirmability. Specific strategies to address trustworthiness were conducting one-on-one interviews, maintaining an audit trail, and transcribing interviews verbatim. The lead author also completed a subjectivity statement to bracket any possible biases that could interfere with data collection or analysis.

Findings

All participants were involved in social media to promote his or her agri-business. Table 1 provides the respondents' pseudonyms, geographic location, age, operation type, and the year the participant began using social media.

Table 1

Demographic Characteristics of Selected Agriculturalists Using Social Media for Agri-Marketing (N = 4)

Pseudonym	Geographic Location	Age	Operation Type	Social Media Start Date
April	Midwest	42	Dairy Cattle	2010
Miranda	Northwest	58	Dairy Goats	2009
Jackson	Southeast	33	Dairy Cattle	2007
Owen	Southeast	37	Dairy Cattle	2010

ROI: Explore participants' motivations for becoming involved with social media.

Data analysis identified one dominant theme for this objective: desire to speak on behalf of agriculture. All four participants said they were encouraged to join social media for the use of agri-marketing because of personal experiences with negative information being shared about agriculture. The participants said negative messages about agriculture outweighed messages supporting agriculture and social media provided a way to share their opinions. April said: "It was getting overwhelming how much negative information there was about agriculture. I wanted a forum where I could share accurate information."

Two of the participants described their social media use as being just one more way to defend agriculture. Owen said, "If I'm just one more person sharing information, positive information, about agriculture, hopefully that will help others find positive information." Participants were asked if they tried to target their messages to a certain audience. One of the participants said he did not spend too much time trying to target an audience.

JACKSON: My thought has always been if what I put out there is good enough, people will read it and they'll keep reading it. If my message is any good, it's eventually going to reach people. It may be slow, but ultimately, I try to be genuine.

Owen said he tried to start small with his social media use and never thought about targeting an audience. He said: "All I wanted was to be another grain of sand saying the same thing as everyone else. That way I could make that voice for agriculture a little louder."

Miranda and April are more specific when they target their messages. April said: "I'm a mom of two kids, so when I talk, I try to target it to moms." Miranda said she tried to target the people in the community who are going to be buying her products.

MIRANDA: I try to target to local eaters. Not even of just my cheese, I promote all local foods – everybody's cheese, everybody's local meat, local produce. I promote all of it because we live in a region where we can get almost all of our diet almost all year around. I try to let the community know that.

RO2: Describe participants' administration of their social media presence.

Data analysis identified two themes for this objective: 1) managing their social media presence and 2) balancing responsibilities.

Managing their social media presence.

Participants used a variety of strategies to manage their social media presence, including linking different platforms, determining content to post, and responding to negative feedback. In regard to linking social media channels, the participants had differing strategies. April and Owen use heavy cross promoting. April said, "I try to do as much cross promotion as possible." Owen said he tries to make the most of his social media channels, and said, "I even promote my blogs on my personal Facebook and Twitter pages." Miranda supports using cross promotion, but she uses it less. She said, "Sometimes I get annoyed with those auto feeds." Jackson uses no cross promoting, saying he tries to reach his audience in separate ways. He said, "I try to tailor my message to get my point across, depending on the platform."

Participants had similar approaches to identify the subject matter of their posts. Subject content was usually generated from happenings on the farm, current agricultural issues, general agricultural information, or audience inquiries. Owen said most of his posts come from what is currently happening on the farm. He explained, "Sometimes I'll blog about what we are doing on the farm, and try to make it relatable to other people." Miranda said she will sometimes write posts related to current "hot topic" agricultural issues. She said: "When the Farm Bill was being discussed, I tried to piggy back on that issue. That way if people Google it, maybe they'll pull up my blog and see what I have to say about it." Jackson said sometimes he will use his phone to post something to just promote agriculture in general. He said, "Sometimes I'll just say something encouraging everyone to drink milk." April said one of her forms of content generation comes from audience inquiries. She explained: "When they ask, I answer. I don't go into any kind of detail, but I always answer their questions."

Two participants said they had experience with negative messages, while the other two said they had not had to handle negative messages. Owen said: "I've had some positive comments, and I've had some in the middle of the road, but I've never had any blatantly negative comments." Contrasting Owen's experiences, Miranda said the negative messages she had received is the reason she had made a technology upgrade. She said: "It's what prompted me to get an iPhone. People were saying things, and I wanted to be able to see what they were saying immediately."

Balancing responsibilities.

All the participants agreed that even though they have other duties, they have been able to manage their social media presence effectively. Jackson said he does not let his social media distract from his work on the dairy. He said: "If I've got a few minutes where I can do something on social media, I'll do it, but I'm not going to create work for someone else because I'm on social media." Miranda said technology is what helps make social media so easy. She shared: "When we're at the farmer's market, I'll post a picture and invite people to come see us. It's really easy that way and it's in real time." Although April said she agrees social media use is not hard to balance with her other responsibilities, she does think it is something you have to prioritize. She explained: "I think you have to commit to some kind of schedule. I just feel like you have to be disciplined and persistent with whatever you decide to do."

RO3: Explain participants' opinions about social media use for their personal agri-marketing efforts.

Data analysis identified two themes for this objective: 1) a presence on social media benefits agriculture and 2) social media can (sometimes) be overwhelming.

A presence on social media benefits agriculture.

When discussing the impact of social media on agriculture, the participants all talked about social media allowing for more transparency between the producer and the consumer. Owen said farmers who post information explaining what they are doing has helped improve communication between these groups. He said, "It has made it more open and more accessible." Miranda said she has learned consumers want to know more about their food.

MIRANDA: People are hungry for that kind of information; they want to see the person behind the scene. I think people are just hungry for something real that they can put their fingers on. I think we're so disconnected, and social media gives us a forum to fix that.

Jackson said the transparency social media has allowed not only helps the consumers who want to know more about their food, but also it helps him. He said, "I have a better insight into what consumers want and what they expect out of us, and I guess, more self-assessment."

Participants mentioned the importance of participating in the promotion of agriculture via social media. April said, "It's really important for us to show that what we do is important and we're proud of it." Miranda said, "We need everyone to understand that there's a real science to all of this, and we're not just doing it on a whim." Participants also described the impact social media has had on their personal businesses. April said: "I think it has had tremendous value because in our community, people know who we are, in our community and also in the agricultural community. I think it helps everybody work together."

Social media can (sometimes) be overwhelming.

Participants' had some differing opinions as to whether or not social media is overwhelming. Jackson and Miranda said they did not feel overwhelmed by social media. Miranda said, "If I get close to feeling overwhelmed, I won't do it that day. It's as simple as that."

Two of the participants said they can sometimes feel overwhelmed by social media. Owen said, "Sometimes you get sucked into it and sometimes it's hard to turn it off." April said she often feels overwhelmed by certain social media tools.

APRIL: I feel like on Facebook or different blogs you can scan every once in a while and get a good picture of what's out there. With Twitter I feel like it's so fast moving, in order to really get a benefit out of it, you have to constantly be watching it.

RO4: Identify participants' appraisal of future social media use in agri-marketing efforts

Data analysis identified two themes for this objective: 1) satisfied with social media use and 2) future social media use in agriculture will be important.

Satisfied with social media use.

All the participants said they were satisfied with their social media use and would not have

changed anything about their adoption of this technology. April said: “I think you learn and grow. You improve, and there’s always something to improve on.”

One indication of this satisfaction was their desire to continue using social media in the future. Most participants said although they do not have plans for expansion right now, the unknown factor of future technology could change their opinion. “You never know what is around the corner,” Miranda said. April also said, “There’s always new technology or an update to enhance your social media use.” Jackson said the growth of technology has surprised him and will probably continue to do so.

JACKSON: I would never have imagined technology would have jumped at the rate it has. It’s easy to say we’ll be doing this or that in five or 10 years with the technology we have, but in reality, I probably can’t even imagine how much growth there is going to be in two or three years.

Future social media use in agriculture will be important.

The idea of social media being a permanent element in agriculture was heard from all the participants. Participants also realized the growing trend of social media was not just with their use of social media for their agricultural operation, but throughout all of agriculture. Jackson said: “There’s no stopping it. It’s going to continue to grow.” Although all the participants said they think the use of social media in agriculture will increase and become more important, April said she thinks it is going to be imperative to integrate social media into agricultural operations.

APRIL: To me, if you’re in agriculture today, that’s got to be someone’s responsibility at your farm or in your family. You’ve got to be out there doing it. So whether it’s your children, grandchildren, nieces or nephews, you’ve got to figure out how you can incorporate it into what you do.

Participants also shared their advice for others in agriculture who are considering using social media for their business or to promote agriculture in general. The most common piece of advice was to be authentic. Jackson said: “Be genuine, let a little bit of your personality show through. Be honest about what you do.” Another piece of advice was to start small. Owen said: “Don’t make it another job for yourself, an unpaid job. Have fun with it. Telling your story should be a wonderful experience.”

Conclusions

As the gap between consumers and agricultural producers increases, the idea of building trust and understanding between these two parties is crucial (Perkins, 2010). Participants in this study recognized a disconnect between agriculturalists and consumers and they desired to refute negative information or correct misinformation about agriculture. It is interesting the participants felt the need to use social media not because they initially wanted to tell their agriculture stories but to address the negative information. According to Shao (2009), the participants’ desire to provide content was to achieve the self-expression and self-actualization gratifications. The information participants were encountering online about agriculture was mainly negative or incorrect. Because of this, participants were motivated to inform others about their own agri-business and agriculture in general through social media.

The desire to use social media to communicate agricultural information implies participants recognized the relative advantage (Rogers, 2003) of social media. Before social media, the opportunities for individuals to share their own perspectives to a mass audience were quite limited and

typically only possible if the individual was able to get the message through traditional media outlets such as television, radio, magazine, or newspaper, either through paid advertising or earned publicity. The advent of social media brought about a revolution in how information is created and shared. The increased participation and interaction between users on the Internet is allowing users to create, communicate, and express themselves (Krumm et al., 2008). This technology was an effective way for participants to share information to audiences that might not be accessible any other way.

Participants realized the management of social media is multi-faceted. They recognized their social media presence is most successful when multiple tools are used to promote each other. The idea of participants using many different social media platforms demonstrates Rogers' (2003) concept of technology clusters, which are defined as "one or more distinguishable elements of technology that are perceived as being closely interrelated" (p. 14). The participants' use of several social media tools illustrates they view social media use collectively and not isolated to individual platforms. They did not discuss how they use Twitter for one purpose and Facebook for another; they used their entire social media presence to communicate about their agri-business and agriculture in general. This can help in reaching multiple audiences wherein a portion of the audience may prefer Twitter over Facebook and vice versa as people use varying media channels to satisfy different needs (Katz & Blumler, 1974).

The participants in this study were very positive overall about their use of social media to communicate about agriculture. The discussion of their opinions about social media identified a number of reasons they use social media, which directly relate to the gratifications sought and obtained through social media. Nardi et al.'s (2004) study of uses and gratifications of social media suggested five main gratifications are met by user-generated content: "documenting one's life, providing opinion, expressing deeply felt emotions, articulating ideas through writing, and forming and maintaining community" (p. 43). Participants recognized the content they create and share impacts the agricultural industry because they try to provide accurate information to audience members who are not aware of current agricultural practices. This desire to make a difference has a connection with the other needs met by social media. They mentioned the things happening on their farms help generate content, which is an example of documenting one's life. All the participants said the primary motivation for beginning their social media presence was to provide audiences with accurate information about agriculture. This demonstrates their need to provide opinion, express deeply felt emotions, and document one's ideas through writing.

After reviewing the initial coding results, additional analytic coding was performed and the researchers found some differences in the responses between the male and female participants for each of the main categories within the emergent themes. Table 2 displays the results of this coding process organized by emergent themes and gender. A difference was noted in how males and females targeted their audience. The male participants did not consider targeting their messages and made them more general to appeal to a broad audience. The female participants said they targeted their messages (e.g., to moms, people in the community). Manago et al. (2008) said women typically use more connective communication strategies, which may explain why they were trying to target audience members to develop a more meaningful connection. When handling negative messages, the males said they did not receive negative messages, while the females said they did receive negative messages.

Table 2

Analytic Coding of Categories and/or Emergent Themes for Differences in Gender

Theme	Male	Female
Targeting an audience	General	Targeted
Using cross promotion	No Difference	No Difference
Determining subject matter	No Difference	No Difference
Handling negative messages	Didn't Receive	Received (Sensitive)
Balancing responsibilities	Less Intentional	Intentional
Social media presence benefits agriculture	Transparency	Advocacy
Social media can (sometimes) be overwhelming	No Difference	No Difference
Satisfied with social media use	Status Quo	Open to growth
Future social media use in agriculture	No Difference	No Difference

In their descriptions of how they balanced social media responsibilities with other personal responsibilities, the males were less intentional while females were more intentional. When males had time to post on their social media channels they would, while the females made it a point to have a schedule and stick to it. When discussing their social media presence benefiting agriculture, males said their presence helps encourage transparency, while females said their presence helps support advocacy. The final difference in responses was seen in participants' satisfaction with their current social media use. Although both males and females were satisfied with their social media use, males said they were happy with the way they operated their social media presence and did not see things changing much in the future. However, the females were very open to growth and changing how they used social media in the future, if necessary.

Recommendations

The participants in this study support what has been said previously by others (American Farm Bureau Federation, 2012; Baumgarten, 2012; Katims, 2010) – social media use in agriculture is important and will continue to expand in the future. Based on the responses of this study's participants, agriculturalists should use social media to promote their agri-business and agriculture in general. With 67% of the online U.S. population using social media (Pew Research Center, 2013), it is a very powerful resource for agriculturalists. The information agriculturalists provide can include agri-marketing efforts as well as information to refute negative or incorrect information about agriculture currently available online.

When providing social media content, it is important to be consistent, reliable, and accurate. The content developed and shared should have purpose behind it. Content can be generated from a variety of sources, whether it is providing details of one's daily life, offering personal perspective on a current agricultural issue, or responding to readers' questions and concerns. Practitioners must decide the types of information their audience members want or need and strive to provide it in a way they would understand and even be willing to share.

The use of social media does require practice and learning from experience. Change agents, such as individuals working for the AgChat Foundation or the American Farm Bureau Federation, should seek ways to demonstrate social media to various agriculturalists to help them better understand how and why to utilize the various social media tools. It would be beneficial to provide workshops or

online trainings to help farmers and ranchers learn how to evaluate their own social media presence.

Although this study does provide a better understanding of the social media phenomenon from those who use this technology to communicate about agriculture, the results are limited due to the small number of participants. It would be useful to conduct additional interviews with more participants who represent other agricultural commodities and geographical regions. Another approach to collect farmers' and ranchers' opinions of using social media would be to conduct research, such as a focus group or intercept survey, in conjunction with a AgChat Foundation or American Farm Bureau Federation convention. This convenience sample would yield additional data to supplement the current study and further elicit the benefits and challenges of using social media to communicate about agriculture. As Rogers (2003) encouraged, it is beneficial to research technology not as individual entities but as clusters. Research to further explore social media as a technology cluster in agricultural communications would be insightful. The results of the additional analytic coding regarding the differences and similarities in gender and encourage subsequent research to further explore how males and females may vary in their user-generated content within agricultural communications.

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About the Author

Danielle White is the marketing coordinator at First United Bank in Lubbock, Texas. Danielle White completed her master's degree in agricultural communications at Texas Tech University in 2013. This manuscript is part of her thesis research. Courtney Meyers is an associate professor in agricultural communications at Texas Tech University. David Doerfert is a professor and serves as Associate Chair and Graduate Studies Coordinator in the Department of Agricultural Education & Communications at Texas Tech University. Erica Irlbeck is an assistant professor in agricultural communications.