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Exploring the Impact of Ohio Agricultural Organizations' Social Media Use on Traditional Media Coverage of Agriculture

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Abstract

One of the nation's most important industries, agriculture, has adopted social media to communicate with consumers and the public. At the same time, traditional news media remains important to the agriculture industry because many consumers still receive information about agriculture from sources such as newspapers and television. Little literature at the time of this study explored how social media is used specifically as a media relations tool. The purpose of this study is to examine how agricultural organizations in Ohio communicate via social media and how the messages could impact central Ohio traditional media outlets' coverage of agricultural issues. The study is grounded in uses and gratifications theory, and previous social media studies. Data were collected from seven Ohio agricultural organizations' Facebook pages and four central Ohio news outlets. Researchers found that Ohio agricultural commodity organizations use social media, but not necessarily to communicate with the news media. The industry received limited news coverage during the time studied, and we were unable to discern a relationship between social media and news media coverage beyond a commonality of stories. By communicating the results of this study with agricultural organizations and researchers, effective social media strategies can be developed to guide the future of social media as a media relations tool.

Keywords

Social media, media relations, news media

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Introduction

Although 98 percent of Americans are not involved in the agricultural industry, agriculture is the groundwork of civilization (Grant, 2010; University of Rhode Island, 2001). Although agriculture is often only associated with the food supply and production, it affects and is a component of, industries including health care, manufacturing, education, personal care, and construction (University of Rhode Island, 2001). Due to the far-reaching influence of the agricultural industry, it is important for society to receive truthful and accurate information about agriculture.

While news distribution has shifted from print to digital, consumers still receive information about the agricultural industry through traditional media, such as television and newspapers (Tweeten, 2014). Traditional media, or any form of media that was present before the Internet, have served as a source of information, entertainment, and education to society while evolving to meet new consumer needs. The growth of technology has led to Americans consuming more media than ever before, thus presenting an opportunity for agricultural communicators to reach the public with agriculture-friendly messages via old media and new media (Waldman, 2011).

Media coverage of the agricultural industry flourished in early newspapers and magazines, but in recent years, the industry has received limited interaction and coverage from news media sources. The decline in agricultural media coverage can be attributed to the distance between agriculture and society, the challenges of cost and accessibility, and limited agricultural knowledge by the news media staff (New Agriculturalist, 2009; Stringer & Thomson, 1999; Treise & Weigold, 2002). It is important that farmers and agricultural communicators develop connections with traditional media outlets, because the media play a role in influencing decision makers and communicating the needs and concerns of the industry (New Agriculturalist, 2009).

Social media are a great value for the agricultural industry because they can be used for marketing, branding, agricultural news, combating of myths and bad publicity, monitoring public opinion, and crisis and risk communication (Wagler & Cannon, 2015; Payn-Kopner, 2009). Farmers and agricultural communicators are now able to reach audiences that would not have received their messages in the past (Knutson, 2011; Meyers et al., 2011). The ability to distribute information in a faster and more direct manner enables agricultural communicators to distribute information that may help consumers and the public gain a better understanding of the industry (Allen, Abrams, Meyers & Shultz, 2014).

Social media have not only benefited agricultural organizations by enabling them to reach out to their publics and consumers but have also provided a way to strengthen media relations (Eyrich, Padman, & Sweetser, 2008). Traditionally, organizations performed media relations and public relations tasks through press releases, advertising, and press conferences, but the adoption of social media enables those organizations to have direct and immediate contact with potential media outlets and journalists across many platforms (Boyd, 2013).

Due to the decline in media seeking out the agricultural industry, agricultural communicators need to find a new and innovative way to reach out and communicate with the mass media to get their stories told. Therefore, the emergence of social media has provided agriculturalists with a new communication channel and potential media relations tools that can further impact the news media’s coverage of the agricultural industry.

Interactions Among Public Relations, Journalism, and Social Media

Journalism and public relations have a long and complicated history as uneasy partners in news generation. McNamara (2014) summarized the evolving relationship between the news media and public relations:

> [Senior] practitioners in both PR and journalism support independent media and reject notions of symbiosis between journalism and PR, instead arguing that, even though they interact, the fields of practice operate independently of each other in many cases and have distinctly different roles, which should not be blurred or converged…However, despite expressed good intentions, a number of factors point to a worsening lack of transparency and increasing convergence of journalism and PR. (McNamara, 2014, p. 747)

McNamara's study also emphasized that social media are becoming important tools for PR practitioners, allowing them to communicate with audiences without traditional news media gatekeepers. Nonprofit organizations are turning to social media like Twitter and Facebook to communicate with stakeholders and other audiences, though their messages tend to be one-way, focusing on public information and press agentry (Waters & Jamal, 2011).

Journalists, too, are becoming increasingly active on social media. Research has shown that "journalists value social media as a tool for publishing and promoting their stories and for interacting with their audiences" (Willnat & Weaver, 2018, p. 891). Social media also allow journalists improved access to their sources (Spyridou et al., 2013). Lariscy, Avery, Sweetser, and Howes's (2009) survey of journalists found that 18.5% of participants use social media to help write their stories, with blogs (59%) and Facebook (24%) being the most common platforms sought for assistance. "While journalists themselves are increasingly embracing social media, they are sensitive to the increased autonomy and power that have been handed to PR practitioners by the internet and are concerned about being bypassed, leading to misinformation and propaganda corrupting the public sphere" (MacNamara, 2014, p. 746). It should be noted that while other studies have examined separately the use of social media by news outlets and PR practitioners, little research exists that investigates the convergence of all three.

Ohio Agricultural Organizations

As noted above, nonprofits, corporations, and other entities are increasingly embracing social media as a public-relations tool. Agricultural organizations are no exception. Agriculture is Ohio's largest industry, contributing over $105 billion to the state's economy each year (Ohio Farm Bureau Federation, 2015). Ohio has more than 13 million acres in farmland and over 75,000 farms (2012 Census of Agriculture, 2014). Ohio's top agricultural commodities include corn, cattle, soybeans, dairy products, and swine (United States Department of Agriculture Economic Research Service, 2014).

Throughout the state, various agricultural and commodity-specific organizations promote and seek support for the agricultural industry. One of the largest agricultural organizations in Ohio is the Ohio Farm Bureau Federation. This organization, along with others including the Ohio Beef Council, Ohio Cattlemen's Association, Ohio Corn and Wheat Growers Association, Ohio Dairy Producers Association, Ohio Pork Producers, and Ohio Soybean Association, promote the agricultural industry and its specific commodities through political and educational actions. By uniting to promote and generate awareness about issues and products, these organizations are able to make an impact on public awareness of agriculture.

Theoretical Framework: Uses and Gratifications Theory

The theory of uses and gratifications (U&G) is founded in psychological and communication research. It explains how individuals use the mass media and why individuals select a particular medium to fulfill their needs (Papacharissi, 2008). Within the theory of U&G, the audience is considered active and consciously selects the media and content (Papacharissi, 2008). Most of contemporary U&G research falls under six main categories, including, "(1) gratifications and media consumption; (2) social and psychological origins of gratifications; (3) gratifications and media effects; (4) gratifications sought and obtained; (5) expectancy-value approaches to uses and gratifications; and (6) audience activity" (Papacharissi, 2008, p. 139).

Not only has U&G been beneficial to understanding uses on the Internet, but it has also been used to understand why individuals do or do not use social networking sites (Raacke & Bonds-Raacke, 2008). Social media has become a topic of interest in U&G research because of the interpersonal nature of the medium (Chen, 2011). To understand what type of gratifications individuals were experiencing from social networking sites, Raacke and Bonds-Raacke (2008) explored the gratifications of college students who used MySpace and Facebook. The study found that the most common gratification was the ability to connect with old friends and seek out information on new friends.

Agricultural communication research has also employed the theory of U&G to determine what media agricultural communicators use to communicate and why. Ruth-McSwain (2008) found that agricultural communicators are familiar with and use agricultural media and print sources as the primary means of communication. The study also found that agricultural communicators used the agricultural media sources because they are friendly and convenient, and there is less of a chance that facts will be skewed by agriculture-illiterate media reporters (Ruth-McSwain, 2008). Agricultural communicators were also choosing print media because it provided more in-depth coverage and they are comfortable with the effectiveness of the medium (Ruth-McSwain, 2008). Although the study supported the traditional assumptions of U&G, it also suggested that agricultural communicators need to use a mixed methods media relations strategy to select the proper medium to reach the target audience (Ruth-McSwain, 2008).

Organizations are changing their methods of public relations because journalists are changing how they retrieve information. According to Jung and Hyun (2014), the use of the Internet by newsroom staff to seek out information and communicate with sources is becoming more popular. Journalists are now participating in social media discussions, therefore creating a new channel of communication for public relations professionals to communicate with the news media (Yoo & Kim, 2013). According to the TEK Group (2012), 26 percent of journalists use Facebook to retrieve basic information about a source, 34 percent like receiving newsworthy information via a timely tweet, and 90 percent believe that blogging is the most valuable tool in developing news stories. The increase in social media as a media relations tool has caused a call for research to understand this trend.

Purpose and Objectives

Facebook is the most popular social networking site used among agricultural organizations because it is well-known among the target audience and has received the most scholarly attention (Tweeten, 2014). Agriculturalists are using Facebook to "agvocate," tell their stories, and communicate with consumers and the public (White, et al, 2014). Although Facebook has been an effective social media platform, agriculturalists believe it is important to build interconnectivity

between different types of social media in order to be more successful (Meyers, Irlbeck, Graybill-Leonard, & Doerfert, 2011). Agriculturalists have been satisfied with their adoption and use of social media and plan to continue forward with social media as a communication tool (White et al., 2014).

The purpose of this study was to examine how agricultural organizations in Ohio communicate via social media and how the messages communicated via social media impact central Ohio (traditional) print and broadcast media sources. The following research objectives were used for this study:

1. To describe Ohio agricultural organizations' use of Facebook to promote current agricultural issues;
2. To describe central Ohio's media coverage of agricultural issues through newspapers and television content; and
3. To describe the commonality of Ohio agricultural organizations' social media messages to central Ohio media outlets, including newspapers and television content.

Methods

This study used a mixed-methods approach with an emphasis on the qualitative results. The design for this study included quantitative and qualitative content analyses of Ohio agricultural organizations' Facebook posts and central Ohio news media stories and articles. Content analysis was selected for this study due to the text- and image-heavy nature of the content. It was crucial in meeting the research objectives because themes could be identified and analyzed to determine if there is a relationship between the Ohio's agricultural organization's Facebook posts and news stories distributed by central Ohio's traditional news media.

Population and Sampling

The study population included agricultural commodity or advocacy organizations in Ohio and news outlets in central Ohio. The organizations included in the study are the Ohio Beef Council, Ohio Cattlemen's Association, Ohio Corn and Wheat Growers Association, Ohio Dairy Producers Association, Ohio Farm Bureau, Ohio Pork Producers, and Ohio Soybean Association. These organizations were selected because they represent the top agricultural interests of the state of Ohio. The second target group for this study was the major news media outlets of central Ohio. These outlets included the *[City] Dispatch*, WBNS 10 TV News (CBS), WCMHTV NBC 4, and WSYX ABC 6. These outlets were selected for the study because they are the largest news media distributors in the area and are all located in Ohio's capital, therefore reaching a large audience.

Data Collection and Instrumentation

Data were collected from September 8, 2014, to October 6, 2014. The collection occurred during a major agricultural event in Ohio, the Farm Science Review. The time period was selected because the Farm Science Review often features topics that are relevant to audiences outside of the agricultural industry, therefore making it into the news media.

Separate coding sheets were developed for the social media analysis and news media analysis. The social media analysis coding sheet recorded the date, time, publisher, likes, and shares of the social media post. The text from the post and an image or video, if available, were also recorded in the coding sheet. During daily social-media coding, the researcher visited each organization's Facebook page and took screenshots of new posts, which were both printed and stored in digital format.

The news media analysis-coding sheet recorded the date, media outlet, author, author type, article or story classification, and the type of article or story. The coding sheet was also used to record all text, images, and video for each story. News story coding was performed daily. The data was collected from online subscriptions and from the central Ohio's news media outlets' websites. The researcher visited the websites daily, reviewed all posted news stories, and collected those that contained any mention of agricultural topics in the title, byline, or copy. Stories were collected via screenshots and stored in a digital file on the researcher's laptop. After coding was completed, all coding sheets and screen shots were printed for analysis. The decision to capture online stories from the broadcast outlets versus coding the actual broadcast was made after thorough investigation confirmed they highlighted their broadcasted stories on the homepages of their websites.

Data Analysis

After data collection, the researcher performed qualitative and quantitative content analyses. Emerging themes were determined for the social media and news media analysis via open coding. Open coding in content analysis is the act of examining the text and images collected from the data and then selecting identifiers, such keywords, to distinguish codes or themes (Hsieh & Shannon, 2005). The text, images, and videos from the posts and articles were used to determine the emerging themes.

A quantitative analysis was also performed to determine the means and frequencies of likes, shares, photos, links, and videos from the social media coding sheets. The quantitative data were organized and reported according to the qualitative themes. Frequencies of the sources used, agricultural organizations mentioned, links, images, and videos from the news media coding sheets were also determined. After the emerging themes were established, common themes between the social media and news media analysis were further analyzed. The researcher compared the dates of when social media posts appeared and when the news media covered a similar theme to determine any commonality. The sources cited in the news articles were also analyzed: Impact by social media content could be assumed if stories cited a social media profile or post. Researchers compared sources used in both the social media and news stories to see if any overlaps were present. According to Colorado State University (n.d.), "the validity of categories… is achieved by utilizing multiple classifiers to arrive at an agreed upon definition of the category" (para. 3).

To increase the validity of the categories for this study, the researcher used multiple keywords and visual identifiers. For example, in the news article analysis, keywords such as "runoff," "fertilizer," "drinking water," and "water quality" were used to develop the *water quality* theme. To measure the reliability of this study, two coders – the researcher and an individual trained in social-scientific research methods – performed inter-coder reliability test using a 10% sample of the social media and news media samples. Coder agreement was calculated at 97.6 percent and was deemed acceptable. While several more robust reliability tests are available, the researchers chose to use percent agreement as it is the only one that allows for discovery by the researcher of any possible overt outliers or if one coder is consistently coding different on a certain type of variable. It also allows better scrutiny of variables that show low agreement (McHugh, 2012).

Findings

Objective 1: Ohio Agricultural Organizations' Use of Facebook to Promote Current Agricultural Issues

Seven Ohio agricultural organizations' Facebook pages were monitored during the one-month data collection period, and 140 Facebook posts were collected. The emerging themes of the Facebook posts included *recipes and food*, *farm and agricultural stories*, *events*, *education and programs*, *general agricultural promotion*, *leadership and professional development*, *awards and recognition*, *job and internship posting*, *politics*, and *water quality* (Table 1).

Table 1.
Frequencies and means of social media content themes posted by Ohio agricultural organizations

	Posts (*n*)	Average Likes[1]	Average Shares[1]
Recipes and food	31	556	430
Farm and agricultural stories	30	83	10
Events	21	18	4
Education and programs	13	11	1
General agricultural promotion	12	646	133
Leadership and professional development	11	12	1
Awards and recognition	7	14	1
Job and internship postings	6	3	1
Politics	5	12	0
Water quality	4	7	1

[1]Values reported per post

The most common theme was *recipes and food*. A post was categorized under this theme if it contained text or images that were affiliated with recipes, food knowledge and education, or other general food promotion. The *recipes and food* theme had 31 Facebook posts. Ohio Pork Producers were the top contributor with 14 posts and Ohio Beef Council was the second with seven posts. Images were common (*n*=30) on *food and recipe* posts. Four types of images emerged: pictures of food, food events, text and image combinations, and images without food. The text that accompanied the images was closely associated with the images. Links (*n*=22) and videos (*n*=1) were also included. The links connected posts to external websites that contained full recipes, information about food-related events, or other food information.

The second most common theme of Facebook posts was *farm and agricultural stories*, which contained text or images of farmers sharing their personal experiences or general agricultural stories that did not fall under another major theme. This theme comprised 30 Facebook

posts. The Ohio Dairy Farmers were the top contributor with 10 posts and Ohio Pork Producers second with six posts. Images of farmers, families, farms, and animals, were included in 19 posts. Videos of farmers, families, and individuals from the agricultural industry telling their stories were found in 11 posts. Most of the videos were linked via YouTube. External links to other sites were included in 25 posts.

Facebook posts categorized under the *events* theme (*n*=21) contained text or images that promoted an event, were posted from an event, or contained information about an event. Ohio Farm Bureau was the top contributor (*n*=9), and Ohio Corn and Wheat Growers Association was second (*n*=4). Posts with images were common (*n*=19), but no videos were included. Eight posts contained external links, and two posts were shared from another Facebook page or external website.

Thirteen posts were identified as related to *education and programs*, meaning they contained text or images that were affiliated with the education of farmers or individuals, disseminating new knowledge, or promotion of an education program offered through the organization. Ohio Farm Bureau again contributed the most (*n*=5), followed by Ohio Beef Council (*n*=3). The majority of the posts contained images (*n*=11), mostly images of farming or educational events; 1 post contained a video; and nine included an external link.

The *general agricultural promotion theme* served as a catch-all category for 12 Facebook posts that did not qualify under another theme. Examples included organization members participating in events, swine industry promotions, and membership activities. Eight posts by the Ohio Pork Producers were categorized as general agricultural promotion, along with three posts by Ohio Beef Council. All posts contained an image, none included a video, and three linked to other sources.

A Facebook post qualified under the *leadership and professional development* theme if it contained text or images that were affiliated with leadership or professional development events and programs. This theme comprised 11 posts, nine from Ohio Farm Bureau and one each from the Ohio Cattlemen's Association and Ohio Corn and Wheat Association. All of the posts included one or more images of professional development meetings, groups, or advertisements. No posts contained videos, but 10 featured external links to stories about professional development events or groups on the organizations' websites.

The remaining themes each comprised fewer than 10 posts. The *awards and recognition* theme included seven posts that contained text or images affiliated with recognizing an individual or group for an award or service. Ohio Beef Council created three such posts. All seven included images of the people or groups being recognized, and five contained an external link; none included video. Only five posts dealt with *politics* – political discussions, issues, or visits – and all were posted by Ohio Farm Bureau. Three posts contained an image; one, a video; and four, an external link. *Water quality* was addressed in four Facebook posts, three courtesy of Ohio Farm Bureau and one by Ohio Cattlemen's Association. All of the posts included external links, three included an image, and one included a video. Images depicted events, graphic illustrations, and water. The video showed a speech filmed at the 2014 Farm Science Review.

Objective 2: Central Ohio's Media Coverage of Agricultural Issues Through Newspapers and Television Content

Four central Ohio news media outlets were monitored and 18 stories collected during the one-month data collection period. Outlets included the *[City] Dispatch* newspaper, the WBNS 10 TV news site, the WCMH-TV NBC 4 news site, and the WSYX ABC 6 news site. The themes

that emerged from the news outlets included *water quality*, *organic food and food products*, *animal welfare and animal safety*, *agriculture and science*, *disaster and tragedy*, and *non-direct mention of agriculture*. (Frequencies for each theme by outlet are reported in Table 2.)

Table 2.
Frequencies and means of traditional media content themes posted by central Ohio news media outlets.

	[City] Dispatch	**WBNS 10 TV**	**ABC 6**	**NBC 4**	**Total**
Water quality	5	0	1	1	**7**
Organic food and food products	0	1	1	1	**3**
Animal welfare and animal safety	0	2	1	0	**3**
Agriculture and science	0	1	1	0	**2**
Disaster and tragedy	0	1	1	0	**2**
Non-direct mention of agriculture	1	0	0	0	**1**
Total	**6**	**5**	**5**	**2**	**18**

The *water quality* theme included content that covered water quality issues or policy. The seven stories averaged three sources per story, and a range of 0-3 agricultural organizations were cited as sources. Five provided an image and two included a video. The common images among the *water quality* stories were maps and farm images. Examples of article titles include "EPA: Officials Must Target Algae Triggers" and "Farm Science Review Tackles Algae Threat" from the *[City] Dispatch*; and "New Reservoir Will Help Protect [City]'s Water Supply" from ABC 6. Keywords used to describe this theme include "water," "algae," "agriculture," "drinking water," and "EPA."

Three stories covering organic food, food issues, or food safety were categorized under the *organic food and food products* theme. WBNS 10 TV, ABC 6, and NBC 4 each contributed one article. The stories averaged 2.33 sources apiece, and each mentioned at least one agricultural organization (range = 1-4). One story provided an external link, two provided an image, and two provided a video. The images included pictures of food or food products. An example of an article title is "Buying Organic? How to Find Best Prices in Central Ohio" from the *[City] Dispatch.*

Stories covering animal welfare issues, animal abuse, or other agricultural animal concerns were categorized under the *animal welfare and animal safety* theme. Three stories were collected: two from WBNS 10 TV and one from ABC 6. Each story included one or two sources, none of which were agricultural organizations. None of the stories provided external links, all provided one or more images, and one of three provided a video.

The subjects of images shown were farm animals and farms. Most of the stories were coverage of the agricultural industry in reaction to animal-abuse scandals. Examples of article titles

include "Phoenix Cow Dies After Being Pelted with Softballs" from ABC 6 and "Four People Arrested in Slaughter at California Chicken Ranch" from 10 TV News.

Stories affiliated with the application of science to agriculture and the use of agriculture in a scientific context included in the *agriculture and science* theme. Two stories were collected: one each from ABC 6 and WBNS 10 TV. No sources were cited and no agricultural organizations mentioned in the stories collected. Neither provided links or images, and only one provided a video. The title of the video story from NBC 4 was "Corn, Soybeans and Weather Folklore." The title of the text-only article from 10 TV News was "Using Pork to Stop Nosebleeds a Winning Discovery."

Disasters and tragedies that had an indirect relation to the agricultural industry were mentioned in two, one each from ABC 6 and WBNS 10 TV. The average number of sources used was 1.5 (range=0-3), none of which were agricultural organizations. None of the stories provided links, one provided an image, and one provided a video. A single article from the *[City] Dispatch* was categorized as a *non-direct mention of agriculture* because it was related to the industry but not presented in an agricultural context. The story included an image of a Holstein calf with a marking resembling a number 7 on its head; the text noted the calf was named in honor of a professional football player who wears 7 on his jersey.

Objective 3: The Commonality Of Ohio Agricultural Organizations' Social Media Messages to Central Ohio Media Outlets

Only one theme emerged as consistent between agricultural organizations' social media posts and news media outlets: *water quality*. Seven news articles discussed water quality, five from the *[City] Dispatch*, one from ABC 6, and one from NBC 4. Four social media posts pertained to water quality, three from Ohio Farm Bureau and one from Ohio Cattlemen's Association. Common keywords among the posts and articles included "water quality," "farmland," "agriculture," runoff," "farming," and "algae blooms." Common sources among the posts and articles included the Ohio Environmental Protection Agency (EPA), the United States EPA, Ohio Farm Bureau, and the Ohio State University College of Food, Agricultural, and Environmental Sciences. The Facebook posts and news articles were both reacting to current water quality issues in Ohio and throughout the U.S. The Facebook posts were showing how the agricultural industry was responding to water quality concerns and ensuring future safe agricultural practices.

While looking for common stories/themes we also analyzed if any social media posts or profiles were cited to indicate a possible direct relationship between social media content and news media articles. No potential direct relationship between the Facebook posts and the news articles was found using this method, but one story did occur in both the social media and news media analysis: the luncheon speech at Farm Science Review on September 16, 2014. The Ohio Farm Bureau covered the story on Facebook on Sept. 19, 2014. The *[City] Dispatch* covered the story on Sept. 18, 2014. The title of the story was "Seeds of ideas may stem runoff." Common sources used in both the Facebook post and the news story include the dean of Ohio State University's College of Food, Agricultural, and Environmental Sciences and the president of Ohio Farm Bureau Federation. Both stories showed how the agricultural industry is making positive steps to improve Ohio's water quality issues.

Discussion

Uses and gratifications theory was used as one of the theoretical foundations for this study. The findings from analysis of Ohio agricultural organizations' Facebook pages support previous

research that "communicators traditionally group their activities around their preferred medium" (Academy for Educational Development, 1985, p. 6). The Ohio agricultural commodity organizations studied all possessed Facebook pages at the time of data collection. Because the Facebook pages had already been in existence and had a significant number of likes per page (range=795-186,544), we can infer that the organizations' communication managers use Facebook as their chosen social medium because it fulfills an existing or desired future gratification. Considering the large number of themes and posts that focus on individuals in the agricultural industry, promote the stories of successes of organizations and their members, and advertise programs and opportunities, it seems that Facebook serves primarily as a tool to communicate *within* industry circles.

Despite its economic prominence in Ohio, agriculture received relatively little news media coverage in the data-collection period. The limited coverage of agricultural topics by central Ohio news outlets supports previous findings of shrinking agricultural media attention (Stringer & Thomson, 1999). Although the articles collected were classified as agricultural, more often than not, the theme of the article was not directly related to production agriculture. For example, the most common theme among the news articles was *water quality*. These articles were collected and the theme was determined because the stories contained keywords, such as "runoff" and "fertilizer," that are often associated with agriculture and farming communities by the public. However, many of the articles cited government agencies like the state and federal Environmental Protection Agency that are adjacent to, but not part of, the agricultural industry, and other articles cited no agricultural sources at all.

The findings of this study also support existing literature that states that news reports surrounding agriculture are of a sensational nature, with bursts of attention followed by little or no follow-up (Cannon & Irani, 2011; Nelson, 1995). The *animal welfare and safety* and *disaster and tragedy* themes are perfect fodder for sensational news coverage. For example, a farm fire instigated three stories, all from different outlets, on the same day, but the same outlets did not report on the fire's aftermath. This finding of sensational, short-term reporting highlights a problem for the agricultural industry in that the industry is not receiving consistent and frequent coverage by the media. Considering that the public receives most of its agricultural information from traditional media outlets, the decline of consumer knowledge of agriculture comes as little surprise.

Based on the interaction – or lack thereof – between agricultural organizations' Facebook pages and central Ohio news media, we can assume that these organizations are not using social media as a means to communicate with media outlets, and vice versa. In the one theme that overlapped both social media and news media analysis, *water quality*, organizations posted in reaction to the aforementioned water-quality crises – in some cases up to a month afterward – while news media outlets posted breaking news updates on the same topic. If agriculture organizations want to take an active role in providing stories to the media with regard to the industry, they must post about agricultural issues as they happen, rather than waiting to respond in the aftermath.

Implications and Recommendations

This study provides a foundation for practitioners and researchers to continue to examine how agricultural organizations are using Facebook and what steps need to be taken to improve the agricultural industry's media relations practices. And improvement is needed: Based on the results of RO3, central Ohio news media outlets are not looking to social media (or at least to Facebook)

for emerging stories about Ohio agriculture. According to Ruth-McSwain (2008), more media coverage of the agricultural industry can be achieved through effective media relations strategies.

The first implication for agricultural PR practitioners is a need to examine the platforms they and the organizations they represent are using to communicate with the public and news outlets. While Facebook may be effective in reaching stakeholders, it lacks impact as a media relations tool. We recommend Ohio agricultural organizations research other platforms, such as Twitter, if they wish to communicate directly with journalists and news media outlets.

The common news article and Facebook post about *water quality* suggest that if information is distributed to news media personnel, the agricultural industry may be more likely to receive media coverage about topics of importance. If agricultural organizations share timely, newsworthy information on Facebook and other social media platforms, then journalists may come to see these outlets as viable sources for stories and come to rely on them in the future. Organizations should also ensure that their social media content is actually reaching journalists and editors by engaging with those individuals online, inviting them to "like" their pages, join their networks, and tagging appropriate outlets in their posts, rather than relying on a one-way press-agentry model of communication.

Future research is needed to further examine the topics explored in this study. Qualitative methods should be used to determine how and where journalists retrieve their agricultural information. Because the agricultural industry receives limited coverage by the news media, understanding how and where journalists research information about the industry can help agricultural communicators tailor their future practices and behaviors to effectively reach journalists. On the other hand, similar studies should be conducted with PR practitioners and communications professionals who represent agricultural organizations to determine, specifically, their intended uses for and gratifications from using social media.

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