

Communicating about the Plastic Pollution Crisis in our Food System: Exploring Interventions to Mitigate Single-use Bottled Water

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Abstract

The use of plastics is ingrained in modern lifestyles, yet plastic waste contaminates a myriad of environments, including those used to produce food. Communication campaigns focused on raising consumer awareness of plastic pollution are lacking showcasing a need to identify how to most effectively address behavior change. Single-use bottled water is one of the largest global sources of plastic, yet there are many alternatives to single-use bottled water that can help mitigate plastic pollution. The Theory of Planned Behavior (TPB) seeks to understand why individuals perform specific behaviors and is frequently used to inform agricultural and environmental communication targeted at behavior change. Attitude, which is a TPB variable, is consistently identified as a significant predictor of behavioral intention providing a foundation for studying single-use bottled water purchasing intention, specifically. In addition, exploring the antecedents of attitude, as a pivotal TPB variable, may provide insights that could be used to increase the effectiveness of communication messages surrounding important, yet unexplored topics such as single-use bottled water, resulting in positive behavior change that helps agriculture and the environment. The purpose of this study was to examine if knowledge, cognitive beliefs, affective beliefs, attitude, and perceived access to clean water effected consumers' intention to purchase single-use bottled water so that agricultural communicators can effectively target the plastic pollution crisis in our food system. Data were collected in September 2022 from residents of Florida, Georgia, and Alabama via Qualtrics using non-probability opt-in sampling. A hypothesized model was analyzed with confirmatory factor analysis and structural modeling in RStudio. The study found knowledge, cognitive beliefs, and affective beliefs accounted for 36.2% of the variance in attitude. In addition, knowledge, cognitive beliefs, affective beliefs, perceived access to clean water, and attitude accounted for 31% of the variance in intention to purchase single-use bottled water. All direct and indirect paths in the structural model were significant. Key findings suggested increasing consumers' knowledge about single-use bottled water should decrease purchase intention. This implies agricultural communicators should determine what facet of knowledge (e.g., health, environmental) related to single-use bottled water is the most effective for predicting behavior interventions and use this in their communication campaigns so consumers are not inundated with too much information. In addition, decreasing affective beliefs regarding single-use bottled water should decrease purchase intention. Agricultural communicators should explore

generational differences related to affective beliefs regarding single-use bottled water to target messaging based on their aesthetic. For example, millennials have engaged in a trend of accessorizing reusable water bottles that may be transferrable to other generations.

Keywords: communication, food systems, plastic pollution, single-use bottled water, theory of planned behavior

Soil Health Motivations and Barriers in the Context of Diffusion of Innovations Theory

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Abstract

Soil health is the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. Though soil-health-related practices are increasingly adopted in farming and ranching operations, but barriers of field-level, structural, knowledge, and social natures prevent implementation among many. Barriers to conservation practice implementation have been studied, but additional regionally-specific information is needed to better understand what stimulates and impedes soil health activities on farms and ranches. Diffusion of innovations is a common theoretical framework that focuses on rate of adoption of an innovation within a social system. In this study, we used diffusion of innovations theory to structure a qualitative study involving in-depth interviews with Kansas agricultural producers about their motivations, barriers, and future plans related to soil health practices on their land. A combination of inductive and deductive coding revealed themes related to motivations in soil health practices (improving system efficiencies, looking for evidence, and core community); barriers to soil health practices (social norms, information accessibility, and geo-physical conditions); and how those motivation and barriers influence their plans for the future (serving the greater good, and expanding community networks). Recommendations from these findings for communication practitioners include 1) emphasizing social support systems; 2) providing regionally-specific outreach and education; and 3) highlighting visual evidence and indicators of operational and ecological system successes.

Keywords: soil health, barriers, communication, diffusion of innovations

Exploring Identities of Extension Faculty and Educators as Science Communicators

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This research explored the relationship between University of Idaho (UI) Extension educators and faculty's social identity as science communicators and their most-used communication types. We utilized social identity theory and Longnecker's (2016) integrated model of science communication as a foundation for this study. This non-experimental, sequential, mixed-method study with a qualitative priority utilized surveys and interviews to gather data. This paper will focus on the qualitative and mixing components of the study. We used stratified purposive sampling based on location and most-used communication type to select participants for interviews to understand their social identities as science communicators. We identified five main themes: continual development, technology, research dissemination, evaluation for motivation, and community relationships. Interviews indicated science communicator is an adaptable and flexible identity shared by most UI Extension educators and faculty. All five themes represented a core value, attitude, or behavior central to identities. We employed a cross case comparison to find relationships between themes and communication type. Motivations for communicating science varied based on communication type, but all emphasized their roles in sharing reliable, research-based information with constituents. Interviews indicated the value of skill-building and expressed interest in additional training to become more effective science communicators and better meet the needs of the communities they serve. Additional research to understand the constituent perspective is warranted to explore how professionals are using science communication practices to align with communication preferences of their audiences to achieve intended outcomes. Developing training to enhance Extension's role in science communication would provide professionals with shared terminology and strategic goals to work toward becoming more effective science communicators.

Keywords: *Extension, science communication, social identity, community, mixed methods*

**Growing Pains: Assessing the strategic organizational communication approaches of an
expanding Extension organization**

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Abstract. As social structures evolve, strategic organizational communication (SOC) must also evolve for organizations to best meet the ever-changing needs of stakeholders. Assessing communications can guide the direction of an organization, while also elevating the organization to the next level. For this study, researchers assessed the SOC strategy of the Extension Disaster Education Network (EDEN) through qualitative focus groups. Results of this study revealed internal communication and resources provided by the organization were perceived as positive communication approaches, while external communication and visibility were identified as perceived negative communication approaches. Other Extension organizations could benefit from the results of this research as they work to prioritize organizational communication goals.

Keywords: strategic communication, organizational communication, systems thinking, Extension communications, qualitative data

New Beginnings: An Exploration of Agricultural Communications Curriculum Development in Ontario

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Abstract

While agricultural communications programs are staples in American higher education, no comparable, robust program exists in any Canadian institution. Canadian and American agriculture face similar challenges such as increasingly skeptical public opinion, disengaged and misinformed consumers, and decreasing agricultural literacy, all which connect to agricultural communications. With the lack of opportunity to directly train and educate agricultural communicators, Canadian agriculture is missing an opportunity to combat these challenges and, moreover, prepare graduates to take on the continually growing agricultural communications career opportunities. This study focuses on the flagship agricultural institution in Canada, the University of Guelph Ontario Agricultural College, as a potential base for a new agricultural communications program. It highlights the opinions of two key stakeholders, agricultural students at the institution, and agricultural industry professionals in Ontario. Following a curriculum development framework by Wolf (2007), stakeholders detailed suggested program formatting, ideal core curriculum content, traits of the ideal graduate, and desired opportunities and experiences provided by such a program. Results found that stakeholders supported the program teaching a variety of communication skills, social skills, and providing networking and co-op opportunities. Participants upheld the value of the program, noting that a major and particularly a minor option are ideal in order to introduce the program to as many students as possible, even those outside of agriculture. Moreover, there was a distinct crossover of Ontarian stakeholder curriculum ideas and existing curriculum elements in U.S. programs. This study serves as an important step for future Canadian or international curriculum development initiatives and seeks to fill the literature gap for agricultural communications curriculum development outside of the United States.

Keywords: agricultural communications, curriculum development, Canada, international, agriculture

Moral values in students' agricultural communications

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Abstract

Socio-scientific issues (SSIs) are controversial or polemic topics in which scientific knowledge must be taken into consideration. Genetically modified (GM) food is an SSI that is an especially important and challenging context for agricultural communication and public engagement. Numerous arguments about the economic, environmental, and social values of GM foods and their risks and benefits have been made in the media and by agricultural stakeholders or advocates. These arguments are strongly associated with individuals' moral foundations, or guiding values and principles. This study explores how moral foundations are used to support their arguments about GM foods in a student-centered engagement activity in the classroom. Using Moral Foundations Theory (MFT), we identified terms and linguistic patterns in student discussion that represent one of five moral foundations: care/harm, fairness/cheating, loyalty/betrayal, authority/subversion and sanctity/degradation. Students also completed the Moral Foundations Questionnaire and questions about their attitudes toward GM technology, science communication knowledge, and confidence. The in-class activity centered around a debate over the risks and benefits of AquaAdvantage salmon, the first GM animal approved for sale. The debate was recorded and transcribed to capture participants' terminology and linguistic patterns. To identify which moral values students used to support their arguments and the extent to which they used moral values to support their arguments, we used the MFT dictionary. The dictionary includes more than 90 words, each aligned to one of the five foundations. Students most frequently referenced the care/harm foundation. Similarly, this was one of the foundations with the highest mean score. The next most frequently cited foundations were fairness/cheating, authority/subversion, and sanctity/degradation. Students also addressed issues of *stigma* surrounding the consumption of GM foods and the health of the wild salmon population. Students' scores in moral foundations were higher than the average politically moderate Americans' scores. Students' confidence in their ability to communicate science was moderate. Students strongly agreed that science communication was important but were less confident about their knowledge of science communication strategies. Our results suggest that there is a need for communicators and educators to better understand how moral foundations affect students' learning behaviors and outcomes. These results highlight the need for additional science communication training and practice at the undergraduate level, particularly regarding SSIs such as GM food.

Key words: moral foundations theory, genetically modified organisms, socio-scientific issues, critical thinking, argumentation, science education.

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If Nobody Hears Us, Do We Really Make a Sound? An Examination of Agriculture Faculty Members' Science Communication Engagement

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Abstract

Effective science communication is needed across the land-grant system to foster transparency between agricultural research and consumers or other end users. Agricultural research faculty are uniquely poised to do so in that they have a front row seat to innovative science as it emerges. However, some scholars have questioned how effectively faculty at these institutions have been able to engage in science communication with public audiences due to lack of training or resources, lack of support, lack of interest, or other barriers. Using the Faculty Engagement framework, this study was conducted to examine the personal, professional, and institutional dimension factors that may explain University of Tennessee Institute of Agriculture (UTIA) faculty members' engagement in science communication. Results of this study revealed faculty members' knowledge of how to conduct science communication activities and perceived institutional support were significant predictors of their science communication engagement. Interestingly, a negative relationship was observed between faculty members' perceived institutional support and engagement. The results of this study suggest a best approach to fostering engagement as teaching faculty how to communicate their science and giving them the support they need to do so. Due to limitations of statistical power, this study should be replicated to include agriculture faculty from other institutes to better examine the other predictor variables that did not contribute to the regression model within this sample.

Keywords: agriculture, research, scientists, knowledge

BETTER BEEF AT THE SUPERMARKET:

SHOULD ANIMAL WELFARE STANDARDS BE MARKETED TO THE CONSUMER?

RESEARCH PAPER

ABSTRACT

Discoveries and standards concerning animal welfare have proven successful for beef producers from European countries. There are many programs within the U.S. that promote proper animal care, however, the U.S. has not yet had an animal welfare program marketed to the consumer. One of these programs is the Beef Quality Assurance program that is offered by the U.S. Beef Check-Off. The BQA program sets standards for care for beef raised in the U.S. This raises the question of whether or not marketing this program would be viable to the consumer, thus allowing for premium pricing.

This research describes animal welfare standards currently in the U.S. that receive premiums, and consumer preference and purchase behaviors. A survey was conducted that captured the U.S. consumers' perceived importance of animal welfare standards modeled by the Beef Quality Assurance guidelines, as well as, willingness-to-pay.

Research found there is a broad market for beef that comes from a Beef Quality Assurance Certified facility. This market is heavily determined by demographics as well as certain guidelines of the program that the consumer finds important in their purchasing decision. The results also indicated that if the Beef Quality Assurance Certified Beef guidelines were marketed to the consumer, consumers would be willing to pay a premium.

Keywords: Animal welfare standards, Beef Quality Assurance (BQA), consumer perception, theory of planned behavior, willingness to pay (WTP)

The Original FaceTime: Communication Preferences in Agriculture Marketing and Customer Service

Abstract

As communication forms evolve, it is important for business leaders to both follow trends and be data-driven to make calculated decisions that are beneficial for their businesses. In this qualitative study, the researcher sought to describe how Arkansas Farm Bureau Federation used face-to-face and computer-mediated communication methods to communicate as an organization and the value their employees and members place on each communication method. Uses and Gratifications theory was used to guide this research, evaluate the results, and discover why people choose certain media outlets. Semi-structured telephone interviews were used to communicate with two groups of participants: employees and members. A thematic data analysis process was conducted using NVivo 11 software. The most-used face-to-face methods included county and state meetings, but adjustments during the COVID-19 pandemic also led to increased use of computer-mediated tactics, such as texts, emails, phone calls, and video conferencing. Though there was a strong preference and value placed on all face-to-face communication forms among both employees and members, there was a shared appreciation for computer-mediated communication forms when necessary. Both employees and members value face-to-face communication methods because they better support relationship-building. Recommendations resulting from this study were for Arkansas Farm Bureau and similar organizations to continue prioritizing face-to-face communications within budgetary limitations and to take advantage of computer-mediated methods, especially videoconferencing to foster growth and inclusion.

Keywords: *Communication, COVID-19, face-to-face, computer-mediated*

Ohio mothers' social identities and influences on food purchasing

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Although domestic labor equity is closer to being achieved in the United States, in heterosexual families mothers still often shoulder the domestic labor, including food labor, burden. This burden can be influenced by mothers' social identities, as can the decisions that they make about food purchasing and preparation. Due to the impact that research can have on marginalized social groups, it is important that mother's identities and how they influence food decision-making be understood. In this study, semi-structured interviews were conducted to uncover the depths of mothers' social identities and the ways they impact their perspectives around food and food decision-making. From the 17 interview participants in this study, seven social groups were researcher identified through the constant comparative method: 1) Black, single mothers; 2) low socioeconomic status mothers; 3) Arab mothers; 4) Asian mothers; 5) Latina mothers; 6) White, middle-class mothers; and 7) mothers of disabled children. While mothers from the different social groups had unique experiences, they also had shared priorities around the ways they make decisions to feed their families.

Keywords: social identity theory, social identities, food purchasing, mothers, food

Significance of Science: Introducing a Scale to Measure Perceptions of Science Communication During a Crisis

Abstract

Agricultural communicator, health organizations, and influencers of policy, among other professionals, regularly need to effectively communicate about complex science. However, it is difficult to evaluate effective science communication with no valid measurement of science communication. The purpose of this study was to develop and validate a measurement to evaluate science communication perceptions during a public health crisis. A measurement of science communication perceptions was proposed and tested with Americans during the COVID-19 pandemic using an online quantitative survey. Results from this study revealed the measurement to be a valid tool to evaluate effective communication.

Keywords: science communication, evaluation, scale development, public perceptions, health, government agencies

1 **Innovation in Isolation: An Exploratory Study on the Diffusion of Local Foods Purchasing**
2 **and Innovative Shopping Methods During COVID-19**

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28 Abstract: The COVID-19 pandemic caused disruptions in food supply chains, increased concerns
29 about food security, and impacted agri-food production and distribution systems. This led to
30 increased discussion of local foods and increased online shopping options for consumers. This
31 study sought to understand characteristics of consumers, in terms of innovation and food
32 acquisition during the pandemic related to short food supply chains (SFSC) in an effort to
33 provide strategies and recommendations to increase the use of SFSCs, better meet the needs of
34 consumers in the food system, and improve marketing and communication efforts. Data were
35 collected from 1,004 adults during July 13 to August 18, 2021, through an online survey. Results
36 showed consumers with higher educational attainment and financial status, from non-rural areas,
37 and with more liberal viewpoints had higher innovation adoption levels. A significant
38 relationship between consumers' rates of innovation adoption and perceived health and safety of
39 local food was also found. Implications for marketing and communication are to the engage food
40 innovators as opinion leaders to increase the adoption of SFSCs use and developed value-based
41 campaigns.

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43 **Keywords:** Diffusion of Innovations, food supply chain, local foods, marketing

**Risk it for the Brisket:
Southeast United States Beef Producer Risk Information Seeking and Processing**

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Southeast U.S. cow-calf producers make up approximately one-third of all cow-calf producers. These producers and their operations face unique challenges and risks due to their geographical location. In addition, cow-calf herds in the Southeastern U.S. are predominately smaller and not primary sources of household income, which makes their operators less likely to participate in risk-reducing programs. One way to manage the risk these producers face is through risk communication. The Risk Information Seeking and Processing (RISP) model helps explain how individuals seek and process risk information. This study used a quantitative survey method to examine the extent of perceived risk area knowledge gaps for Southeast U.S. beef cow-calf producers, the impact of their individual characteristics on perceived gaps in risk area knowledge, and the communication channels they use to seek risk information. Southeast U.S. beef cow-calf producers were found to have gaps in knowledge for all risk areas in beef cow-calf management with the largest gaps being for economic and marketing/selling risks. The individual characteristics of education level, beef cattle production experience, and herd size resulted in statistically significant differences in Southeast U.S. producers' perceived knowledge gaps in some of the risk areas. The top communication channels Southeast U.S. beef cow-calf producers use for seeking information were magazines and extension publications. Recommendations for practitioners include tailoring risk management communications for Southeast U.S. cow-calf producers. Emphasis should be placed on communicating marketing/selling and economic risk management to less experienced operators with smaller herd sizes through magazine and extension publications.

Keywords: RISP, beef industry, risk communication, cow-calf producers, communication preferences

An Exploratory Study of Risk Experience and Personal Values on Support for Climate Change Policies

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In 2020 Oregon suffered one of the worst wildfire seasons on record that included a higher percentage of burned forest area, the destruction of residential areas, and significant risk to human health. The level of wildfire intensity was largely attributed as an effect of climate change, and future Oregon wildfire seasons are predicted to grow in intensity, acreage burned, and total duration. Public policy can be a tool to help to mitigate the effects of climate change, but successful policy implementation relies on public support. Therefore, this study sought to explore two factors that may influence support for climate change policy: risk experience and personal values. Oregon residents' perceptions of and experiences during the 2020 Oregon wildfire season were assessed. Results indicated the value of universalism had a significant and substantial association with support for climate change policy, and power, achievement, stimulation, self-direction, and benevolence had significant low associations. Participants' risk experience with wildfires accounted for little total variance in regard to support for climate change policy.

Keywords: climate change, wildfire, personal values, risk experience, policy support

**Prioritizing Values:
Identifying Target Audience Segments for Strategic Climate Change Communications**

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Abstract

Climate change communication poses a challenge for science communicators, as the issue has become increasingly polarized in American society. With climate change's impacts predicted to get more destructive, those interested in activating public climate support have championed efforts to understand how to most effectively engage the public with climate change messages. Target audiences have been identified as a necessary communication strategy when communicating about controversial topics such as climate change. Additionally, scholarship has called for increased attention to personal characteristics such as trust and values that have been infrequently measured and scrutinized in climate change communication scholarship. Through a K-means cluster analysis, we identified five strategic target audiences for strategic climate change communication based on self-report data measuring participants' *climate change perception, trust in science, trust in media, and political ideology*. Then, we describe the values and demographic profiles of each audience group to provide insight for strategic message development. The five emergent target audiences were named and described as follows. The Skeptical Traditionalists were strongly opposed to the scientific consensus, strongly distrusted science and media, and were predominantly conservative. In order of priority, they valued security, tradition, benevolence, self-direction, and achievement. The Slightly Skeptical Traditional Moderates were somewhat opposed to the scientific consensus, neutral in their trust in science, somewhat trusting of media, and were politically moderate. In order of priority, they valued security, benevolence, tradition, achievement, and power (with achievement and power equally valued). The Neutral Adaptive Conservatives were neutral regarding agreement with the scientific consensus, trust in science, and trust in media. This group was politically conservative and valued security, benevolence, tradition, self-direction, and achievement. The Slightly Trusting Adaptive Moderates were somewhat in support of the scientific consensus, neutral in their trust of science and media, and politically moderate. They valued benevolence, security, self-direction, universalism, and tradition. Lastly, the Trusting Helpful Adaptives were somewhat supportive of the scientific consensus, somewhat trusting of science and the media, and politically liberal. This group valued benevolence, universalism, security, self-direction, and tradition. Because certain values have been positively associated with certain climate behaviors, our results can guide value-congruent messaging efforts that consider target audience's values, climate-related perceptions, and demographics. Furthermore, this study establishes a foundation for future experimental message testing research to build upon, which would answer the need for understanding how message characteristics influence certain target audiences.

Keywords: Climate Change, Audience Segmentation, K-means Cluster Analysis, Target Audience, Strategic Science Communication

Data Visualizations in Infographics: An Experimental Study Investigating the Type of Data Visualizations Used in Infographics on Participant Recall

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Abstract

The concept of agricultural sustainability, specifically sustainable livestock, is not well established and much misinformation frames this conversation. One way agricultural communicators can educate the public on this controversial topic through infographics, which are a powerful type of visual communications tool. These infographics can be used to share unique, novel, and complex information, thus attracting viewer attention. Infographics include data visualizations, or images, signs, maps, graphs, and charts, that use quantitative data to deliver information quickly and in a visual format to message viewers. Knowing the most effective type of data visualization will allow communicators to better educate consumers, which could help to decrease misunderstanding and misinformation surrounding the agricultural industry. Scholars have suggested recall, or the mental process of retrieving information from the past, as one way to understand what someone has comprehended when exposed to new information. The Limited Capacity Model of Motivated Mediated Message Processing (LC4MP) provides insight into human information processing and recall, and it guided this study's development.

This study specifically explored the types of data visualizations used in agricultural infographics about beef sustainability. The purpose of this study was to determine the effect various types of data visualizations used in infographics about agricultural topics have on college students' knowledge and ability to recall attributes presented in the infographic.

An experimental study was conducted where participants viewed one of three infographics (i.e., pictograph, pie chart, or bar graph) and answered questions to understand their recall of information, design elements, and their change in information recognition. The results show that pictographs were significantly more effective in participant information recognition and the free and cued recall of design. However, there were no differences in information recall based on the type of data visualization used.

These findings add to the agricultural communication literature as they show how the type of data visualization can impact how viewers encode, store, and retrieve information. Specifically, that design elements highlight salient aspects that help participants to encode information and later retrieve it for decision making. The researchers suggest agricultural communicators implement pictographs more frequently in infographic communications strategy. Additionally, agricultural communicators must begin to train students on the use of data visualization techniques and design in classroom settings.

Keywords: Data Visualization, Infographics, Recall, LC4MP, and Information Recognition

**Infographics in Agriculture:
A Content Analysis of Infographics From U.S. Agricultural Organizations**

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Abstract

Infographics have become a popular medium for agricultural companies to use when sharing information with consumers. It is common for agricultural communicators to share complex topics when discussing products, processes, and practices, and the use of infographics can help communicate these complex topics in a more digestible way for the reader. Design elements and message content are critical components of the effectiveness of an infographic. Other elements – such as data visualization, typography, orientation, and color scheme – also play a role in an infographic's readability. To gain a better understanding of the elements currently used within infographics, this study sought to explore the various content and design elements found within infographics published by the agricultural industry. A quantitative content analysis of 220 infographics from agricultural organizations in the United States was conducted to identify the types of infographics used as well as the design elements and message content they contained. Results reported variances in how content was presented, the structure and layout of the infographics, and the design elements used. Understanding the elements of graphic design currently utilized in infographics is the first step in building a better understanding of effective visual communication practices in the agricultural industry and may lead to more effective messaging and communication with consumers and the public in the future. Recommendations for future research include analyzing the effectiveness of data visualizations across infographics to further understand which elements are the most successful in communicating about agricultural topics.

Keywords: *infographic, visual communications, design elements, graphic design*

Explicating News Frames: A framing analysis of GMO news coverage

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Abstract

Introduced to the U.S. Congress in January 2015 and passed in July 2016, the National Bioengineered Food Disclosure Standard (NBFDS) directed the Secretary of Agriculture to create a standard for the mandatory labeling of foods that may or may not be bioengineered or genetically modified (NBFDS, 2018). Policy change, such as the NBFDS, is the result of influences by political organizations, interest groups, and public opinion (Burstein, 2003; Jacoby & Schneider, 2001). As the general public does not have a direct involvement with science; as a result, they rely on news media to gain an understanding of topics such as genetically modified organisms (GMOs; McCluskey et al., 2016). The news media influence how the public perceives certain topics by giving attention to certain issues or certain elements of an issue and making them seem more salient (Entman, 1993; McCombs, 2004). The purpose of this study was to examine what frames were used in news coverage of GMOs from 2015 to 2020 in mainstream news publications. A quantitative content analysis was used to identify frames used by major U.S. news outlets when covering GM in three major U.S. news publications during this time period. Rather than coding for the presence of a whole frame, this study used an approach proposed by Matthes and Kohring (2008), in which coders coded for individual elements pertaining to Entman's (1993) four dimensions of a frame (i.e., 1) define problems, 2) diagnose problems, 3) make moral judgments, and 4) suggest remedies). Through concept explication, we operationalize these dimensions as the inclusion and exclusion of certain elements that communicate the 1) *nature of the issue*, 2) *responsible actors or stakeholders of the issue*, 3) *risks and benefits regarding the issue*, and 3) *tone of the presentation* which cluster together to portray the issue in a certain light. We used hierarchical cluster analysis to statistically assess how these frame elements clustered together to create a frame. Three frames emerged from the cluster analysis: *Policy Change Conflict*, *Research and Defining the Issue*, and *Public Opinion is Negative*. The *Policy Change Conflict* frame highlighted political actors as the decision-makers regarding science and emphasized the conflict between politicians and government agencies and interest groups. The *Research and Defining the Issue* frame highlighted scientists, agriculture science companies, as well as the risks and benefits of GMOs. The *Public Opinion is Negative* frame highlighted consumers as main stakeholders and their concerns regarding GMOs and had a largely more negative tone than the other frames. There was an immediate drop in coverage after the passage of the NBFDS. Findings contribute to the body of literature surrounding how GMOs are framed in news and how public relations practitioners can leverage conflict to garner media attention. The findings from this study confirm previous findings from McComas and Shanahan (1999) which posited that journalists need conflict to attach their story to. Public relations practitioners and policymakers should leverage debate and conflict as news values in order to keep their issue on the agenda if that is their goal. When trying to keep things off the media's agenda, practitioners should try to obscure the conflict regarding their issue.

Keywords: framing theory, genetically modified organisms, content analysis, cluster analysis

A Multi-Method Analysis of Diversity, Equity, and Inclusion Websites of *Fortune* 500 Agricultural and Food Companies

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Abstract

Each year, Fortune magazine compiles and publishes a list of the 500 largest corporations in the United States of America based on total revenue in the previous fiscal year. Being listed on the Fortune 500 is commonly viewed as prestigious as these companies are the most financially successful public businesses in the U.S. As corporations viewed as successful, these organizations must prioritize diversity, equity, and inclusion (DEI) for a multitude of reasons. Not only can increasing DEI work be financially beneficial for a company, but previous literature has indicated that increased diversity in the workplace can also improve problem-solving abilities and creativity. Thus, the purpose of this study was to determine how agricultural and food companies on the 2021 Fortune 500 list demonstrated a commitment to diversity, equity, and inclusion efforts on their corporate websites. Using both quantitative and qualitative content analysis, we analyzed the diversity, equity, and inclusion website of each food and agricultural company listed on the 2021 Fortune 500 list. Most websites only required two clicks to access resources and information regarding how the company supports diverse audiences in the workplace when navigating from the main corporate website. Regarding the content hosted on these websites, corporations should ensure that DEI is a priority for the company and should ensure this commitment is clearly communicated on the website using definitions, corporate commitments, and employee resources on websites. Additionally, using visuals such as photos, videos, and graphics can improve communication in this space. For the qualitative portion of the study, we analyzed the use of executive and employee voices in communicating about DEI on the corporate landing page via analyzing direct quotes. Two themes emerged in the analysis including the corporate theme, which discusses DEI work as beneficial for the company as whole. Within the corporate theme came the work-to-be-done subtheme which address corporate DEI work as a work in progress. The second theme that emerged was the personal and professional theme. In this theme we outline how DEI work at the corporate level helps support the personal and professional wellbeing of employees and stakeholders. Finally, we offer suggestions for communicators and executives for communicating about DEI in the food and agriculture webspace and offer recommendations for future research.

Keywords: Diversity, Equity, Inclusion, Corporate, Websites, CSR, Food, Agriculture

What's on Netflix?: An exploratory content analysis of agriculture and natural resource-related videos on Netflix

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Consumers want to know more about the agricultural workers, systems, and processes that are bringing food to their table. When seeking out information, many consumers are turning to entertainment and video streaming services, especially those who have documentaries, such as Netflix. Netflix is the most popular streaming service, with over 209 million global subscribers. Previous literature regarding Netflix shows, movies, and documentaries demonstrates that these types of media have the potential to impact public perception of agriculture. These types of media also have the potential to reinforce outdated stereotypes and inaccurate information regarding the agricultural industry. Previous studies have shown that some students' perceptions of agriculture change after watching an agricultural show, movie, or documentary on Netflix. However, there is no research that has taken inventory of what types of videos come up when one searches for agriculture and natural resource-related content on Netflix. This study sought to explore what media Netflix was designating as agriculture and natural resource-related terms into their search tool. A content analysis revealed findings regarding the video's general attributes, emergent themes of video descriptions, and visual characteristics of Netflix video thumbnails. Findings suggested that Netflix promotes its own Netflix Original content most and people representation on thumbnail images was most dominant. Agricultural communications educators can consider how much agency audiences have when searching for content on streaming services and how what perceptions can form. Educators should continue to teach media and information literacy to their classes and industry stakeholders.

Keywords: Netflix; content analysis, media, agriculture and natural resource related-content; media literacy