Exploring the Determinants of Intentions of Agritourism Businesses to Expand

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Abstract

Agritourism is a rapidly growing, yet niche, industry that economic, environmental, and social benefits agricultural and community systems. To realize these benefits, agritourism business owners need such goals, community support, and a multi-modal communications effort. The purpose of this study was to identify the determinants informing Kansas agritourism business owners' intention to expand their business. Guided by the Theory of Planned Behavior, a quantitative, descriptive survey research design was used to gather data from businesses registered with the Kansas Agritourism Program. Results showed agritourism operators' attitudes, perceived behavioral control, and subjective norms were positively and significantly correlated with their intention to expand their business. Attitudes were measured by goals for the business, of which capturing new customers was the most important. Perceived behavioral control was measured by barriers to expansion, of which deciding how to promote the business to target customers was the biggest problem. Subjective norms were measured by community perception of the agritourism businesses' local contribution, of which contributing to the growth and success of the local economy was the most prominent. The importance and number of communication channels used was also positively and significantly correlated with agritourism business owner intention to expand their business. The most important communication channels for agritourism promotion were word-of-mouth and Facebook. Future research needs include richer understanding of these findings through qualitative analysis. Practitioners should address agritourism operators' goal of targeting new customers and barriers to effectively promoting to them by providing tailored trainings and resources for strategic communication.

Breaking Down the Sorghum Market: Identifying Target Audience Segments' Benefits for Strategic Communications

Abstract

The complexities and opportunities within the sorghum market underscore the pivotal role of effective communication in promoting its consumption. Understanding the diverse stakeholders and their interests in the sorghum supply chain is crucial due to the market's complexities. Audience segmentation emerges as a strategic approach to tailor messages to distinct groups based on their unique needs and characteristics, recognizing its value in the dynamic sorghum market. This study aimed to contribute to the comprehension of the benefits of sorghum consumption and lay down the correspondent audience segments. To do so, three key objectives were established: 1) Identifying and describing target audience segments based on perceived benefits; 2) Describing the demographics of each cluster within these segments; and 3) Describing the perceived barriers faced by audience members. These objectives intend to enhance communication strategies within the sorghum market. For this quantitative study, a K-means cluster analysis was utilized to develop the audience segments, based on the survey data which measured the perceived benefits (Gluten-free, high in antioxidants, lower price, locally available, environmentally friendly, and sustainable food source). An ANOVA analysis was used to verify the segments or clusters were statistically different. The demographics, benefits and barriers were described for each one of the segments to get better insights into an effective communication strategy. This study will foster the sorghum industry by enabling tailored communication strategies, fostering consumer engagement, and enhancing product positioning. By understanding distinct audience segments and their preferences, the industry can optimize messaging and promote sorghum consumption effectively. This can drive market growth and increase consumer awareness, benefiting both producers and consumers alike.

Keywords: Audience Segmentation, Sorghum Market, Cluster Analysis, Target Audience, Message Tailoring, Communication Efforts

An enthusiastic but uncertain welcome: CRISPR thematic coverage in U.S. agricultural news 2012-2022

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Abstract

As new technologies like gene editing become more commonplace in agriculture, producers of all levels – from commercial operations to smallholder farms – are presented with opportunities to learn about these technologies and make key decisions about their adoption. Agricultural news outlets can play an essential role in setting the agenda for farmers on these topics. We conducted a content analysis of 529 articles published between 2012 to 2022 in 53 agricultural news outlets across diverse geographical regions in the U.S. The study examined news coverage of one particular gene editing technology: CRISPR. We identified themes in these articles related to CRISPR's benefits and risks, as well as societal and policy-related disagreement, which might impact producers' evaluations of the technology. We also identified how these news stories characterized the difference between CRISPR and its socially controversial predecessor, GMOs, and lastly, we identified the affiliations of frequently quoted experts. News coverage of CRISPR shifted over time, with a peak 2018 and fewer articles in the years since. Results showed an emphasis on the benefits of CRISPR and its advantages over GMOs, often backed by statements from university scientists and industry leaders. Several policy debates and concerns over the lack of public acceptance were extensively covered between 2012-2022, and very few articles specified any ethical implications or potential risks. Based on the way these news outlets report on CRISPR, producers have received the potentially conflicting message to adopt CRISPR technology amidst uncertainty around policy and public acceptance.

**From the Ground Up: An Arts-Based Analysis of Online Engagement Impacts on Youths'
Conceptualizations of Hydroponics and Related Careers**

Abstract

Prior research has indicated youth are concerned about the future of the planet. Meanwhile,
agricultural and natural resources (ANR) experts are developing new sustainable agricultural
production methods and technology solutions to increase access to food in urban areas with
current and potential soil and water quality issues. ANR communicators, educators, and
Extension professionals can leverage media tools and online programs to connect youth with
(ANR) experts to introduce urban agricultural methods such as hydroponics growing systems
and sustainability careers through dialogue and demonstrations. The purpose of the following
study was to apply arts-based research methods to explore how an online science engagement
program impacted a youth audiences' conceptualizations of sustainable agriculture. We collected
visual arts-based data, specifically post-event drawings and writing prompts, to examine how
imagery from a live webcasted electronic field trip (EFT) about hydroponics appeared in an
urban class of secondary school age youths' conceptualizations of food growing techniques and
related career role models. We coded youths' drawings and compared them directly to the
imagery featured in the EFT - including a freight farm, hydroponics practices, and Cooperative
Extension experts. We present the results in themes and a visual collage that indicated youth a)
identified specific hydroponics techniques and technology such as ultraviolet lights and sensors,
b) conceptualized women career role models as hydroponics experts, and c) described
hydroponics as a sustainable agriculture solution for urban food insecurity. Findings indicated
that EFT imagery influenced students' perceptions, with the resulting collage of data depicting
important connections between EFT content and youth drawings and emergent themes from data
analysis codes and categories. The findings have implications for ANR communication and
Extension professionals developing youth and urban engagement programs such as intentionally
creating hands-on demonstrations and pre-produced video segments of ANR locations and
thoughtfully including diverse role models in programming to reach underrepresented audiences
who may not have considered a career in the ANR sciences. Future research could replicate the
study across ANR topics, locations, and careers as well as implement real-time evaluation
methods such as perception analyzer dials and opinion polling.

Keywords: arts-based research, hydroponics, electronic field trips, Extension, youth

Exploring Environmental Frames about Single-Use Plastics to Inform Visual

Communication Messages

Abstract

The plastic pollution crisis is threatening ecosystem sustainability, agriculture, and public health. Behavioral interventions, such as communication campaigns, are necessary to address the plastic pollution crisis but research is lacking on how to effectively develop messages for reducing single-use plastic use. Previous research has focused on the textual components of a message regardless of visual context when attempting to alter behavior. Visual imagery is emerging as an important study context as it can influence public attention, emotions, and understandings of the message; thereby influencing behavior change. The purpose of this study was to examine the effectiveness of visual communication message frames for national park websites that are intended to influence public intention to use single-use bottled water so that agricultural and environmental communicators can effectively communicate about the plastic pollution crisis. An experimental design was used to determine if the visual frame in a communication message alters behavioral intent toward using single-use bottled water. The positive frame displayed an individual drinking from a reusable water bottle while sitting in nature. The negative frame displayed single-use water bottles littered in the same natural landscape. The text in the messages was identical. Data were collected in October 2023 from U.S. residents 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 the communication message with the negative frame where there are single-use water bottles littered in nature decreased respondents' intention to use single-use bottled water in national parks. In contrast, the communication message with the positive frame where an individual drinks from a reusable water bottle while sitting in nature increased respondents' intention to use single-use bottled water in national parks. Key findings suggested agricultural and environmental communicators should explore negative visual frames with various images, improving the influence of communication messages on behavior change that benefits agriculture and the environment. Future studies should conduct interviews with the public to determine what emotions the images evoke so communicators can further tailor visual messaging to influence public behavior.

Keywords: communication, environment, plastic pollution, single-use bottled water, visuals

Public Engagement in Community Gardens:
Communicating to Prepare for Climate Change Impacts on Gardens

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Abstract

Climate change is impacting the entire world with threats to the environment, global economies, and human health. Our climate is changing more quickly than the pace of natural variations that have occurred throughout the Earth's history, pointing to human activity as evidence for these rapid changes. Decreased quality and quantity of water sources, extreme temperatures, changes in rainfall patterns, and intensifying droughts are all impacts of climate change the world is experiencing. Adaptations to climate change will need to be implemented in the agricultural sector to ensure the longevity and sustainability of the global supply of food. Community gardens are one part of the agricultural sector that aid in supplying local food to both rural and urban areas. Community gardens are usually owned and operated by groups like churches, schools, nonprofits, or counties, and they can be used to address food and health insecurity. Community gardens are and will be impacted by climate change, so it is necessary for research to address climate change adaptation practices in community gardens. Previous studies have focused on the benefits community gardens provide such as being a social hub, providing fresh produce in food deserts, and aiding in climate change mitigation. A gap in the literature exploring how community gardens are preparing for climate change exists. The purpose of this study was to determine motivations for community garden engagement and level of importance associated with climate-smart adaptations in community gardens so effective communication strategies can be developed which encourage community gardens to prepare for climate change to ensure a sustainable food supply for the future. Respondents were recruited to take an online survey using non-probability opt-in sampling. Reasons for engaging in a community garden and associated level of importance related to climate-smart adaptations in community gardens was obtained. Data were analyzed using descriptive statistics and a multiple linear regression. The results indicated social and health reasons for engaging in a community garden significantly predicted associated level of importance related to climate-smart adaptations in community gardens. Agricultural and environmental communicators should develop messages about sustaining social and health reasons for engaging in a community garden to increase adoption of climate-smart practices in their gardens. Future research should explore the impact of location, rurality, food accessibility, and socioeconomic status on reasons for engaging in a community garden and associated level of importance related to climate-smart adaptations in community gardens.

Keywords: *climate change, community gardens, climate-smart adaptation, agricultural and environmental communication, diffusion of innovations*

'Yellowstone' …Is this Really Ranching? An Exploratory Qualitative Analysis of Agriculture Priority Areas Featured in '*Yellowstone*' TV Trailers

Many consumers aren't involved in agriculture and one way they might be exposed to the industry is through television. One television show that has skyrocketed to the number one show on cable is *Yellowstone*. *Yellowstone* features challenges in the ranching community through a fictional family, the Duttons, who are based in Montana. Whether this show is accurately portraying elements of ranching is up for debate amongst real ranchers and industry groups. The fictional show has had a real impact in the state of Montana as it has contributed to increasing the number of visitors, the amount of annual dollars spent in the state, and amount of people moving in. The agricultural community has noted, for better or worse, *Yellowstone* is telling a story about ranching, and people are tuning in. The livestock industry has publicized the issues they are dealing with to inform members of the public about the efforts they are taking to address these issues. This study sought to explore what agricultural priority issues were present and how they were being presented in each of Yellowstone's five seasons' trailers through collaborative analysis. Findings included the show featuring "next generation" and "land resources" as the most present priority areas. The "power" value was the most present amongst priority areas. Additionally, many visuals featured landscape shots of the ranch and Montana. Agricultural communicators should consider the impact a popular film can have on the industry as well as where opportunities of joining the discourse around scenes in the film can help lead to education or consumers understanding agriculture better. Implications of popular media on agriculture should also be explored. Future studies should test impressions and perspectives shifts after consuming entertainment media on agriculture.

Yellowstone, Values, Agricultural Priorities, Cultivation Theory, Television

A Barbie Doll with a Gun: Understanding Women's Motivations and Barriers to Hunting

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Abstract

Hunting, traditionally portrayed as a male-dominated recreational activity, has seen recent declines in participation numbers. To offset this decline in hunting and maintain conservation funding, natural resource agencies are interested in recruiting previously overlooked demographics. Women, a growing hunter demographic, bring unique perspectives and motivations to outdoor recreation activities such as hunting. Additionally, female hunters desire different communication preferences than male hunters. To assess these unique perspectives and communication preferences, six focus groups were conducted with women hunters in Oklahoma. Feminist Standpoint Theory was used as a framework for this study. Common themes surrounding barriers and motivators for women in hunting include children and family importance in hunting, significant others' importance in hunting, camaraderie being central to the hunting experience, a desire to change stereotypes around hunting, and women-specific limitations in hunting. A result not found in previous literature is the restriction of biological barriers for women hunter participation. Common themes surrounding communication preferences of women include tailoring communication to women-specific interests, emphasizing consistency and clarity in communication, and utilizing preferred communication channels of women for hunting information. Results from this study highlight the importance of women-specific marketing in increasing hunter recruitment and retention success.

Keywords: hunting, women, Feminist Standpoint Theory, outdoor recreation, communication preferences

Quantifying Queer Visibility: A Content Analysis Exploring Queer Representation in Food and Agriculture Magazines

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Abstract: Agriculture and food magazines share stories with readers that offer an insider perspective to the world of agriculture and food and the people involved in food processes and creation. While queer issues have been long studied in the media, representation of queer people in stories has largely been missing from empirical research. This content analysis examined agriculture and food magazines for stories with queer representation to determine the framing, tone, and prominence of queerness in the articles. Articles were selected from the top ten agriculture magazines by circulation, and the top ten food magazines by circulation. Each of the 20 online magazine websites were searched for queer keywords, ending up with a sample of 72 articles from 2016-2022. Findings indicated the majority of stories used a dominant equality/queer representation frame and discussed queerness in a positive or neutral tone. Both magazine types had a surge in publishing queer stories in a specific month of the year (June), but also in the most recent year (2022). Additionally, findings indicated food magazines are more likely than agriculture magazines to use queer words or symbols in the headline, subhead, images, or image captions. Implications exist for shaping the culture and representation of queer stories in agriculture and the food system, and agricultural communicators who want to highlight queer perspectives and voices.

Keywords: queer; lgbt; agriculture; food; magazine; content analysis

Message Design Matters: An Experiment on Portrayal of Protective Action Guidance in Warning Messages for Three Hazards

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Abstract

Increasing frequencies of severe weather events pose significant risks to lives, property, and public safety. Risk communicators (e.g., local weather broadcasts, the National Weather Service, Extension) play a crucial role in informing individuals about approaching hazards and guiding them on how to respond effectively during different phases of disaster communication. Protective action guidance has been defined as the information people need to inform them of what to do to protect themselves in the face of a hazardous situation. To inform the public about approaching or occurring severe weather events, organizations, such as the National Weather Service, communicate warning information about the approaching hazard. However, many of the social media messages disseminated by the National Weather Service do not include protective action guidance, despite its understood importance in practice and related literature. Scholars have also called for more research on the portrayal of protective action guidance in a message to prove which design best imparts protective action knowledge. To answer this call, we explore how four portrayals of protective action guidance, particularly in Twitter messages, influence knowledge of protective actions. We first describe individuals' perceptions of the appropriate protective actions to take when either a dust storm, snow squall, or tornado is approaching. Then, we report on changes in protective action literacy after exposure to a series of hazard warning messages with varying portrayals of protective action guidance (nowhere, *control*; in the text only, *text;* in the graphic only, *graphic;* or in both the graphic and text, *both*). The study's results reveal important insights into protective action literacy for three hazards (i.e., dust storm, snow squall, and tornado) and the influence of protective action guidance portrayal in warning messages on participants protective action literacy. Participants' understanding of appropriate protective actions (i.e., protective action literacy) varied across hazards and was influenced by message type. For dust storms, participants were generally unfamiliar with recommended protective actions, emphasizing the need for research-based guidance in this area. For snow squalls, including protective action guidance in the text of the message proved most effective. In the case of tornadoes, participants exhibited a higher level of pre-existing protective action knowledge, but the *both* message format was still most effective in increasing protective action literacy, which was the same for the dust hazard. The study's findings underscore the importance of including clear and specific protective action guidance in disaster communication messages. Practitioners should also tailor message design to the specific hazard and prioritize evidence-based recommendations. This research contributes valuable insights into disaster communication and protective action guidance communication. It highlights the importance of evidence-based message design, the need for comprehensive guidance for all hazards, and the role of agricultural communication in disaster preparedness. Ultimately, the study's findings can inform more effective disaster communication strategies and guide future research.

Keywords: Hazard communication, message design, protective action guidance, weather alerts, snow squall, tornado, dust storm

1 **Overcoming Barriers: Describing Cattle Producers' Motivations & Perceived Barriers**
2 **Toward Adopting Sustainable Practices to Inform Communication Strategy**
3
4 Kindle Catching, Ginger Orton, M.S., Laura Fischer Ph.D.
5
6 **Abstract**

7 In recent years, the cattle industry has come under scrutiny for negative environmental impacts
8 causing the industry to introduce numerous climate-smart goals with aspirations to move toward
9 more sustainable cattle production practices that balance the three pillars of sustainability: social,
10 economic, and environmental. The adoption of practices that are in line with industry goals relies
11 on cattle producers' acceptance and increased integration of sustainable practices on their
12 operations. Research has shown there is shared frustration among those who work with
13 producers regarding the extent to which they choose to adopt these practices. In order to
14 encourage behavior change among this group, it is important to understand how producers
15 perceive these practices, what practices they are currently adopting, and their barriers and
16 motivations to develop more informed communication campaigns that resonate with the targeted
17 audience. The Theory of Diffusion of Innovations provides a theoretical framework to explain
18 how new technologies, practices, and/or ideas can be spread through a social system, and social
19 marketing is a framework that applies strategic communication techniques to encourage long-
20 lasting behavior change benefiting society as a whole. In this study we used both the Theory of
21 Diffusion of Innovations and social marketing framework to determine cattle producers' current
22 intent of adoption, their perceived benefits, and their perceived barriers toward adopting
23 sustainable practices to inform communication campaigns aimed at encouraging cattle
24 producers' willingness to adopt sustainable practices. An intercept survey was created and
25 distributed to cattle producers attending a national cattle convention to gain quantitative data
26 regarding producers' perceived benefits and barriers and motivators toward the adoption of
27 sustainable practices. The results indicated producers have the highest intention to adopt
28 practices focused on supporting the local economy, maintaining the overall welfare of cattle, and
29 preserving ranching culture. Additionally, producers viewed protecting water quality, protecting
30 the welfare of cattle, and maintaining healthy ecosystems as the top benefits to adopting
31 sustainable practices on their operation; whereas, financial concerns and risks, changes to
32 equipment and technology, and perceptions of inefficacy were viewed as barriers toward
33 implementation. Communication to cattle producers should focus on how adoption can elevate
34 their perceived benefits and minimizing the reported barriers. It is recommended that additional
35 research studies focus on continued approaches to understanding the types of information cattle
36 producers need to further explain communication strategy in this area by qualitative approaches
37 as well as message development and testing. Practitioners should seek to apply social marketing
38 frameworks in their communications strategy. Furthermore, implementing social marketing in
39 the classroom is recommended to better equip students with techniques that identify the barriers
40 and benefits to a target audience to inform effective communication campaigns that promote
41 long-lasting behavior change.
42
43
44 **Keywords:** Diffusion of Innovations, Social Marketing, Benefits, Barriers, Communication
45 Strategy, Behavior Change

Talking mental health: An assessment of Oregon Agricultural Stakeholders Discussing Mental
Health

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Talking Mental Health: An Assessment of Oregon Agricultural Stakeholders Discussing

Mental Health

Abstract

Working in agriculture presents some unique mental health stressors, including financial difficulties, climate variability, and isolation. Farmers and ranchers need farm stress mitigation strategies, which can help mitigate suicide rates and depression prevention. Oregon has one of the highest prevalence of mental illness. Currently, Extension offers mental health literacy programming addressing mental health and suicide in agricultural communities; however, some of the programming is under-attended, and resources are underutilized. We sought to find out how communicating about mental health resources was perceived by agricultural stakeholders who work closely with farmers and ranchers, including agribusiness employees, leaders in the community, and pre-service agriculture teachers. Through this mixed method study using focus groups and a survey, we wanted to find out the perceptions of mental health resources to help inform communication methods of the mental health resources We found stakeholders preferred embedding mental health resources in existing resources offered to farmers and ranchers. Stakeholders were interested in more training, specifically to learn warning signs of mental health; however, some of the agribusiness participants found breaching the subject of mental health could make an uncomfortable position for both parties in the business context. The term "stress" should be used instead of "mental health," and Extension should be the channel through which the information is communicated.

Keywords: *mental health; mental health literacy programming; mental health communication;*

Extension.