

Leveraging Skype in the Classroom for Science Communication: A Streaming Science – Scientist Online Approach

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Abstract

There is an increasing need to find alternative ways to educate youth about science. One method of non-formal education that has been introduced to teach youth audiences about science is electronic field trips (EFT). EFTs can be conducted in a number of ways. This article provides professionals with the foundational steps needed to develop and host an EFT using the Skype in the Classroom platform. The article will discuss the establishment of a science communication network, the development of the 'Streaming Science: Scientist Online' format, content creation and the production team structure, and mobile production hardware and software. Student outcomes in terms of knowledge gained and perceptions of the EFT, as well as, excerpts to demonstrate student engagement in the EFT are shared.

Growing Grassroots: Predicting Policy Engagement and Communication Among Members of Agricultural Organizations

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Abstract

Agriculture and natural resource (ANR) policies and regulations can significantly impact the income and livelihood of ANR sector members. Such policies and regulations are often determined by and voted upon by elected officials, and, therefore, the decisions made by those officials have become key influencers of the functionality and future direction of agricultural operations. Agriculture organization (AO) members are key stakeholders within the ANR sector, and their engagement in policy decisions can help direct future policy formulation and implementation. This study was conducted to examine the impact of AO members' perceptions, abilities, and prior efforts on their likeliness of contacting an elected official and engaging in ANR policy. AO members in this study who had greater confidence in their abilities to engage in ANR policy and had previously contacted an elected official were more likely to contact an elected official about a future policy. AO members who had more favorable beliefs about how elected officials prepare to vote, however, were less like to engage in ANR policy by contacting an elected official. Future practice should include training and educational opportunities to enhance AO members' perceptions of their ability to engage with their elected officials and influence ANR policy decisions. Future research should be conducted to gain a better understanding of the challenges faced by AO members when contacting elected officials to inform a future measure of task difficulty.

Impact of Animating Infographics About Genetic Modification on Information Recall

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Abstract

Genetic modification (GM) science is a complex and controversial topic that can instill uncertainty and fear into the minds of the individuals. While science research surrounding GM science in food has indicated no negative impact on the health of humans, consumer perception research has indicated a sense of skepticism and risk surrounding the issue. The Risk Information Seeking and Processing (RISP) model attempts to understand how individuals search for and process information about a subject with some associated level of risk. Infographics are a form of data visualization used to communicate complex ideas. Animation has been shown to garner greater attention from respondents through previous research in other areas of consumer engagement. Utilizing a quasi-experimental study, this research tested the use of a static and animated infographic to measure impact of respondents' ability to recall key information visually portrayed about GM science. The current study found a statistically significant difference was found between the animated infographic treatment group and the respondents' recall ability. Several demographic factors were explored to further understand how infographics are processed by respondents. Key findings in the current research suggest intentional implementation of animation may attend respondents' attention to key details and information associated with complex issues surrounding GM science in food.

Do Touch that Dial: A Guide to Continuous Response Measurement in Agricultural Communications

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Abstract

As the gap in agricultural experiences between farmers and consumers grow, it is important for agricultural communicators to communicate strategically with their audiences and be proactive in addressing consumers' concerns. Communication media can present a variety of messages or pieces of information that represent multiple perspectives within one unit. The dynamic nature of communication media, such as video and audio messages, lead to the fluctuation of feelings and responses to different elements within one singular message. While agricultural communications has traditionally relied upon quantitative and qualitative survey data, there are likely gaps in complete understandings of individual perceptions in response to varying elements of the communications message. Continuous response measurement (CRM) is a method that can be used to monitor and track individual responses to media messages in real-time to reveal critical moments within a communications message. CRM holds the potential to help those in agricultural communication understand what specific elements within messages resonate most with consumers. This professional paper explores how researchers can use CRM, showcases benefits and drawbacks of CRM, and provides recommendations for contributions to agricultural communications literature.

Technically Speaking: Technical Skills Needed for Agricultural Communication Baccalaureate Graduates

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Abstract

The purpose of this national study was to assess the perceived importance of 57 technical skills identified in previous literature, and to determine entry-level, agricultural communication graduates' ability to perform those technical skills as perceived by agricultural communication graduates, communication industry professionals, and agricultural communication faculty members. Participants from the three evaluation groups (n= 193) in online surveys identified three of the most important technical skills needed by agricultural communication graduates were those associated with communicating in written form, concise and clear writing, and communicating verbally. Graduates placed a higher importance on technical skills than the other two evaluation groups. All three evaluation groups showed some agreement on graduates' highest ability to perform several technical skills: ability to use technology, ability to use Microsoft Word, and ability to adapt to contemporary media. A significant difference was found with the ability graduates afforded themselves in telephone etiquette, ability to use Microsoft Word, reading skills, ability to use Instagram, ability to use graphic design software, and ability to use web design software, as compared to the other two evaluation groups. Recommendations included incorporating technical skills into instruction for undergraduate students. Content should be focused in technical-skill areas identified as being of high importance: communicate in written form; communicate verbally; write concisely and clearly; and use of proper punctuation, grammar, and spelling. Faculty members could benefit from research that identifies more effective measures to evaluate technical-skill attainment.

Communicating Through Calamity: A Look at Rural and Urban Extension Professionals' Communication Before, During, and After a Hurricane

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Abstract

The purpose of this study was to determine the role urban and rural community status plays in the communication of University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Extension faculty and staff during and after a disaster by identifying the extent of communication efforts, the extent to which technology was utilized, the communication messages conveyed, and organizational communication versus personal communication. The crisis used for understanding these efforts was the 2017 hurricane Irma. An online survey methodology was used to collect data from Extension personnel across the state. Results indicate there are differences between how rural and urban Extension faculty and staff communicate during and after a hurricane. The internet was used to a great extent as a communication channel by both rural and urban Extension professionals, but how they used the internet differed. Urban audiences chose more personal mediums when communicating personally about the hurricane, while rural participants used more social media when communicating on personal channels. Implications for this study are an increased need for templates and communication training for Extension personnel. Future research should focus on understanding crisis communication during times of power loss and examine the different roles played by Extension in rural and urban counties.

What's All the Buzz About? An Assessment of the Online Content Of [State] Mosquito Control Programs

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Abstract

This study analyzed the online content of [State] mosquito control programs to with the intention to inform local public health officials and agricultural communicators about the online content being used to communicate with local residents about mosquito-related topics. Through a content analysis approach, the information and media and social media content on [State] mosquito control programs websites and pages were assessed. Majority of the websites and pages included in this study provided contact information, but did not provide up-to-date mosquito control schedules. The websites and pages also lacked modification dates and general lack of media diversity. It is recommended that this study is replicated in other regions where mosquitoes are prevalent. Future recommendations for research should assess the semantic and information source cues of trustworthiness included on the websites and pages. Practitioners have the opportunity to improve the overall surface cues of trustworthiness included on the websites and pages, such as providing modification dates.

Looking for Information: An Exploratory Study to Explain Public Information-Seeking Behaviors About Mosquito Control Topics

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Abstract

Mosquitoes pose substantial risks in communities worldwide, and the extent and type of such risk may vary across communities and regions. The integrated mosquito management approach integrates multidisciplinary methods into practical strategies tailored to local communities. Reduction of mosquito larval sources via community engagement in at-home mosquito control behaviors is a key component of this approach. Best methods of communicating information to the public to foster knowledge and motivation to engage in local mosquito control efforts. The purpose of this descriptive, correlational study was to describe the [State] public's mosquito control information search behaviors, as well as examine factors that may explain those behaviors. Findings revealed statistically significant relationships existed between respondents' information search frequency and their subjective and objective knowledge, importance of mosquito control, personal responsibility, income and education. Significant relationships were also observed between personal responsibility and homeownership and type of residence. Respondents perceived CDC websites and [State] DOH websites as the most trustworthy of the sources listed, and were most likely to use local mosquito control program websites when searching information. Local mosquito control districts should include easily accessible CDC or DOH resources on their websites to direct the public to information they feel they can trust. Future research is needed to further examine the directionality and predictive nature of variables examined in this study.

Agriculture, Food, and Natural Resource Opinion Leaders in Online Environments

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Abstract

The purpose of this study was to examine opinion leadership in the context of agriculture, food, and natural resource (AFNR) issues by examining the general and online opinion leadership characteristics of state FFA officers. The theoretical framework of this study was informed by opinion leadership. To achieve the goals of this study, an online survey was employed to explore opinion leadership levels and social media behaviors of participants. A census of the accessible population of 276 state officers was attempted, and 97 usable responses were received (35.1%). The results indicated three levels of AFNR opinion leaders: mediatized opinion leaders, opinion leaders, and inactives. Mediatized AFNR opinion leaders demonstrated higher levels of online opinion leadership than in-person opinion leadership. These individuals should be identified for their propensity toward online AFNR communication and factored into agricultural literacy efforts. Trainings and resources should also be provided for these opinion leaders in the areas of social media and AFNR issues. Further research about online AFNR opinion leaders should be conducted.

The Media's Influence on Climate Change Beliefs: A Partisan Comparison

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Abstract

The current, fragmented media landscape coupled with partisan views toward scientific issues has made it difficult for members of the public to achieve mutual understanding toward critical issues like climate change. Selective media exposure, media's credibility in reporting science and reporting climate change, trust in science, along with socio-cultural characteristics of consumers are all expected to influence the public's belief in climate change. However, effects may differ across partisan lines. The purpose of this study was to understand how the media influences [State] residents' beliefs in climate change across political ideological groups. An online survey was completed by 506 respondents, and respondents were categorized as conservative, moderate, or liberal based on a political ideology question. Differences were noted between political groups for variables of interest. Most notably, liberals believed more in climate change compared to conservatives or moderates. Additionally, liberals perceived the media to be more credible when reporting on science or climate change compared to the other political groups. Media use also followed party lines, with conservatives favoring Fox News, moderates favoring ABC News, and liberals favoring CNN. Regression analyses found the media influenced climate change beliefs disproportionately across the political groups; conservatives were influenced the most. Trust in science was a positive predictor for all three groups; however, only conservatives and moderates were directly influenced by media use. The discussion of this paper expands on past research related to selective media exposure, reinforcing spirals, and the hostile media environment.

The Experience of Female Graduate Student Researchers in the Agricultural Sciences

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Abstract

Research is an essential component of educational institutions and for many students, it is a requirement for fulfilling higher-level educational degrees. Using a queer phenomenological perspective in combination with the social cognitive theory and queer theory as a theoretical framework, this descriptive study explored the experiences of female graduate students doing research. This study examined the shifts of individual's alignments, such as behaviors and values, in various social and environmental contexts in research and higher education. The experience of ten females studying and conducting research in the agricultural sciences highlighted the importance of mentorship in conducting research and navigating academia. Research served as a valuable way to gain knowledge, collaborate with other students, and begin the process of mentor/mentee relationship. Mentoring is a needed part of the female graduate students' experience as it helped participants work through uncomfortable situations, especially where students do not align to a normative environment, therefore, find themselves disoriented or shifting in behavior.

Identifying Roadblocks and Improving Strategies to Foster New Media Technology Adoption in Extension

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Abstract

Extension agents have been educating and serving their clientele for over 100 years. As the years have come and gone, advancements in agriculture and technology have grown immensely. With these developments, education and communication have come to the forefront of extension. New media technology, a result of technology advancements, has the potential to positively influence the way extension agents communicate and educate their targeted audience. However, new media technology adoption in extension has been a slow and tedious process. The purpose of this qualitative study was to examine [State] extension agents' use of new media technology and their decision process behind adopting or rejecting the use of new media technology, while also identifying potential roadblocks preventing adoption. This study was guided by three separate theories: diffusion of innovations, the theory-in-use model, and the model of strategic learning. The three theories were incorporated into a holistic model of technology adoption and used to guide the research. This study offers possible solutions for overcoming the identified barriers to implementing new media technology and also proposes a new holistic approach to technology adoption.

Milk Does a Label Good: An Experimental Study of the Impact of Beverage Labeling on Consumer Perceptions

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Abstract

The nuance of one word – a name or identifier – can make a significant difference in how information is processed by consumers and can blur distinctions between products. The dairy industry has argued that companies selling plant-based beverages have coopted the term ‘milk’ to sell their products (e.g., almond milk, rice milk, and soy milk). The purpose of this study was to determine if consumers perceive dairy and plant-based dairy alternative beverages to be variations of ‘milk,’ rather than distinct food products. All hypotheses were tested using a between-subjects, random assignment design. Participants were recruited from an undergraduate participant pool at [University]. Data was collected using online questionnaires administered through Qualtrics. Regression analysis revealed a first order interaction between beverage name (‘milk,’ ‘juice’) and prior attitudes. The more negatively participants felt about drinking milk, the more they preferred plant-based beverages to be identified as ‘milk.’ The social norms associated with milk, however, did not necessarily transfer to the plant-based dairy alternative ‘milks’ or ‘juices.’ Although distinctions between ‘milks’ may be blurring for some consumers, milk and plant-based ‘milks’ are still perceived as distinct products. This distinction should be noted in any legal or legislative discussions regarding genericide of the word ‘milk.’

Unobserved Interaction Between Participants and Discussion Topics Within Focus Group Discussions: An Application of Social Network Analysis

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Abstract

While focus group discussions have become popular across the communication research field, some researchers pointed out the importance of studying group interactions that happened within focus groups. However, most researchers have used a qualitative approach and mostly explored the interaction between participants, or between participants and the moderator. This study claimed there might be a third and unobservable interaction that happened between participants and structured discussion topics. An affiliation network in social network analysis was applied to investigate this phenomenon among eight groups of existing focus group conversations. By affiliation network data and network visualization, this study demonstrated diverse structures between groups. Statistical differences were found between groups by using ANOVA, at least two pairs of groups' interaction between participants and discussion topics were different from each other. This study demonstrated that social network analysis could be a possible tool to help examine focus group interactions from qualitative data, and pointed out that the interaction between participants and discussion topics could be a potential third interaction in focus group studies. This study is limited by comparing the mean difference between groups, so the impact of unobserved interaction on groups or individuals couldn't be solved. Future research may examine short and long term causal effects of group interaction on participation or attitude changes after focus group discussions.