Research Poster

Juicy YouTube videos: Why some Extension blackberry breeding video shorts just seem sweeter

Anika Parks
University of Arkansas
AFLS E-108
Fayetteville, AR 72701

Jefferson D. Miller
University of Arkansas
AFLS E-108
Fayetteville, AR 72701

Introduction/Need for Research

YouTube videos have become a staple in the Extension communications toolkit. YouTube video shorts have become especially useful because of the short form's "higher levels of audience retention" (Langworthy, 2017, par. 5). In fact, it's as though this relatively new medium has nearly replaced the ultimate Extension staple, the Extension fact sheet. The [name of institution] Division of Agriculture has recently had some success at educating clientele about blackberry varieties patented by the [name of institution] Fruit Breeding Program. Some videos had significantly more views than others, so an effort to identify the characteristics of the more successful videos was conceptualized to identify the most impactful features of successful videos for incorporation into future efforts. The objective was to analyze the characteristics of selected [name of institution] blackberry videos in terms of YouTube viewership statistics as well as in term of themes from previous literature regarding the use of YouTube in Extension education.

Conceptual Framework

One evaluation of Extension water conservation digital outreach resources demonstrated that YouTube video efforts generated more than ten times more views than a website dedicated to the same topic (Sutherlin et al., 2015). Another showed a preference for 1-5 minute videos, which "allowed [audiences] to conceptualize the information, especially due to the combination of auditory and visual components" (Ramsay et al., 2012). Two important Extension-related research articles containing advice that has been frequently cited include Case and Hino's (2010) advice for self-producing Extension videos and Kinsey and Henneman's (2011) guidelines for developing viral online videos. The literature also frequently emphasizes the value of using YouTube's built-in analytics tool and user comments features to evaluate video efforts (Case & Hino, 2010; Kinsey, 2012; Langworthy, 2017; Parish & Karisch, 2013; Topps et al., 2013). As more Extension YouTube video producers share their empirical evaluations, the most effective practices for extension video producers will surely become clearer.

Methods

The study focused on eight blackberry variety YouTube videos, as that category had a wide disparity in the numbers of views, despite apparent similarities among the videos, and despite the fact that most of the videos had been online for a similar amount of time. The code book for the content analysis was developed from previous literature published on the use of videos and/or YouTube in educational or training situations. Codes categorizing characteristics of the videos were pre-identified from the following concepts occurring in the related literature: *length* (Ramsay et al., 2012; Kinsey & Henneman, 2011), setting (Ramsay et al., 2012; Kinsey & Henneman, 2011), *content* (Case & Hino, 2010; Ramsay et al., 2012; Kinsey & Henneman, 2011; Level, 2008; Mathiasen et al., 2012), *YouTube conventions* (Kinsey & Henneman, 2011; Parker et al., 2011; Topps et al., 2013), *sharing and driving traffic* (Kinsey & Henneman, 2011; Case & Hino, 2010), and *comments and qualitative evaluation* (Langworthy, 2017; Topps et al., 2013). A single-coder approach was employed using the code book (Liebrecht, 2021).

Analysis

Researchers used a hand-coded axial coding system (Strauss & Corbin, 1990) to organize the codes and used frequency counts to help identify the most heavily coded themes occurring in the blackberry variety videos. The coding frequencies were then compared to the viewership counts, and this comparison constituted the main findings of the study.

Results

Five videos were posted within 16 days of each other in July 2013, while the other three videos were published in August 2015, August 2017, and October 2019. Views range from 4,360

to 50,773 views, and length of video ranges from 1:13 minutes to 2:39 minutes.

The video with the highest number of views was the fourth out of five videos published in July 2013, and it is the third longest video in the group. This video contained an auditory distraction, but it had zero instances of jargon, and it had the highest number of comments at 25. The channel responded to five comments on this video, which is the highest number of times it had responded to user's questions and concerns.

The video with the least number of views was published in August 2017, making it the second youngest video, and it was the fifth longest video. This video contained an auditory distraction in the form of overlapping voices, it had the second highest number of phrases classified as jargon, was not embedded or linked to any obvious locations, and received only three comments. The channel had only responded to one of those comments.

Conclusions/Discussion

It can be concluded that educational videos on YouTube benefit, in terms of views, from defining jargon or avoiding its use altogether, and from embedding them (or links to them) in at least one location on social media or a related website.

Previous literature on the use of YouTube in Extension has several suggestions for increasing the number of Extension constituents who view videos. These suggestions include keeping the video under five minutes in length, avoiding distractions, using real scenarios, discussing a maximum of three to four concepts per video, limit the use of jargon, and including an interesting title that potential viewers will be searching for (Ramsay et al., 2012; Kinsey & Henneman, 2011; Mathiasen et al., 2012; Case & Hino, 2010).

The blackberry variety videos analyzed tended to follow the above recommendations, with the exception being that video distractions or jargon appeared in even the more frequently viewed videos. Case & Hino (2010) suggest planning for access by posting the link to the video (or embeddeding it) in multiple places, which all but two videos follow, including the most frequently viewed videos. In this collectin of blackberry videos, it appears that those with more recommended elements, such as no jargon and more comments, had a higher number of views without being embedded or linked. However, the process of embeddeding or linking the video clearly can increase views even if a video does not possess as many recommended elements.

Videos with less use of jargon and more comments had more views, and the use of jargon was linked with decreased views, likely due to viewers' preferences for videos with less technical terminology. Additionally, the number of comments cin influence a video's ranking in the internal YouTube algorithm, which in turn affects whether a video's likelihood of showing up as a result of a user's YouTube search (Cooper, 2020); some of the more frequently viewed videos had more engagement in the content.

Recommendations

Avoiding technical jargon and making efforts to drive traffic to the videos through external linking and embedding are important practices. Responding to comments on videos might have an effect on views as well because it may increase the video's ranking. To further support strategic planning of Extension video efforts, more research on improving engagement through comments on the YouTube channel is warranted as well. Concepts that appeared important but were outside the focus of this study included the influence of preparation and analyzing the analytics available to the channel owner on the number of views. Further studies exploring how different styles of preparation influence Extension education video views are recommended as well.

References

Case, P., & Hino, J. (2010). A powerful teaching tool: Self-produced videos. *Journal of Extension, 48*(1). https://www.joe.org/joe/2010february/tt3.php

Cooper, P. (2020, August 18). How does the YouTube algorithm work? A guide to getting more views. *Hootsuite.* https://blog.hootsuite.com/how-the-youtube-algorithm-works/

Kinsey, J., & Henneman, A. C. (2011). Making your online video go viral. *Journal of Extension, 49*(4). https://www.joe.org/joe/2011august/tt3.php

Kinsey, J. (2012). Tracking online data with YouTube's insight tracking tool. *Journal of Extension, 50*(3). https://joe.org/joe/2012june/tt6.php

Langworthy, S. (2017). Do you YouTube? The power of brief educational videos for extension. *Journal of Extension, 55*(2). https://www.joe.org/joe/2017april/iw1.php

Level, A. V. (2008). Tapping technology: Creating web-based tutorials for master gardeners. *Journal of Agricultural & Food Information, 9*(4). https://doi.org/10.1080/10496500802483171

Liebrecht, C. (2021). The one-coder reliability. Vrije Universiteit Amsterdam. https://fsw.vu.nl/en/departments/ communication-science/news-and-activities/intercoder-reliability/the-one-coder-reliability/index.aspx

Mathiasen, L., Morley, K., Chapman, B., & Powell, D. (2012). Using a training video to improve agricultural workers knowledge of on-farm safety. *Journal of Extension, 50*(1). https://www.joe.org/joe/2012february/a6.php

Parish, J. A., & Karisch, B. B. (2013). Determining interest in YouTube topics for extension-authored video development. *Journal of Extension, 51*(6). https://www.joe.org/joe/2013december/tt6.php

Parker, S., Powell, L., Hermann, J., Phelps, J., & Brown, B. (2011). Preferred educational delivery strategies among limited income older adults enrolled in community nutrition education programs. *Journal of Extension, 49*(1). https://www.joe.org/joe/2011february/a8.php

Ramsay, S. A, Holyoke, L., Branen, L. J., & Fletcher, J. (2012). Six characteristics of nutrition education videos that support learning and motivation to learn. *Journal of Nutrition Education and Behavior, 44*(6). http://dx.doi.org/10.1016/j.jneb.2011.10.010

Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research: grounded theory procedures and techniques*. Sage.

Sutherlin, Topps, D., Helmer, J., & Ellaway, R. (2013). YouTube as a platform for publishing clinical skills training videos. *Academic Medicine, 88*(2), 192-197. https://doi.org/10.1097/ACM.0b013e31827c5352