Determining Interest in YouTube Topics for Extension-Authored Video Development

Abstract
With an audience of over 1 billion users per month, YouTube is an attractive medium for delivering Extension programming. Amidst growing competition for viewership, determining content that is in demand by Extension clientele on YouTube is a daunting challenge that Extension educators face. The YouTube Search function of Google Trends and monitoring of existing YouTube views for related content can help guide topic selection in developing Extension-authored video content. Example applications of these tools are detailed to show how to select relevant YouTube topics with viral appeal and extend the reach of Extension programming.

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Introduction

YouTube attracts more than 1 billion unique users per month who watch over 4 billion hours of video per month (YouTube, 2013). Kinsey (2012) noted that the audience that Extension is trying to reach is clearly online and watching videos. The advantages of delivering Extension programming via YouTube are apparent. Brief online videos, such as those posted to YouTube, can readily reach more viewers than face-to-face meetings (Kinsey & Henneman, 2011). Its viral nature is a draw for Extension educators hoping to command a large audience (Kinsey, 2010). YouTube videos are a valuable means of delivering information to Extension clientele without regard to time and distance constraints. In addition, these videos can help create further interest in extension programming (Case & Hino, 2010).

As Extension's presence on YouTube grows, it is important that this content be successful in attracting viewers amidst expanding competition. To achieve a large audience, a video must contain interesting and relevant subject matter (Kinsey & Henneman, 2011). Case and Hino (2010) suggest that topics that lend themselves to visual demonstration have potential as successful video projects.

Rader (2011) suggested that Google Trends could be used to identify what clients are searching for on the Internet. More specifically, Google Trends has a feature that allows users to limit a search to YouTube keyword searches. This article explores the use of the Google Trends and YouTube
monitoring to identify topics with more viral potential as YouTube video subject matter for an
extension YouTube channel.

Some Topics Attract More Viewers

After only 4 months of existence, the disparity in interest in videos offered on the Extension-
authored MSUBeefCattle YouTube channel (http://www.youtube.com/user/MSUbeefcattle) was
obvious. Views of selected beef cattle producer education videos after the first 4 months on YouTube
were as follows:

1. Freeze Branding Beef Cattle, 757 views
2. Mineral and Vitamin Feeding Management, 400 views
3. Beef Cattle Crossbreeding Systems, 191 views
4. Yearling Cattle Performance Data Collection, 79 views

Despite being online for comparable lengths of time, the freeze branding video viewership pace was
nearly 10 times that of the least watched video of the group on yearling data collection. Similarly,
after only 1 month on this channel, a video titled "Bull Semen Storage and Handling" had garnered
214 views, surpassing the cumulative views for two of the four videos uploaded 3 months prior to it.
This disparity in views begged the questions, "What topics are YouTube users interested in viewing?"
and "How can topics be identified that will generate relatively large audiences for an extension-
authored YouTube channel?"

Identify Popular Search Terms Using Google Trends

YouTube traffic changes over time. Seasonal and long-term trends can be seen using the YouTube
Search feature of Google Trends. Figure 1 illustrates recent search interest in the United States in
"cattle" as a term in YouTube searches. An interesting seasonal trend for this term is that search
interest typically wanes in the summer months relative to other times of the year. The most recent
interest in this search term is rising on YouTube, indicating good potential for future success for an
Extension channel containing cattle-related information.

Figure 1.
Google Trends YouTube Search Interest over Time in the United States for Cattle as a Search Term,
2008 to 2013
The number 100 on the vertical axis represents the peak search interest. Google Trends also provides suggestions for both top ranking related keywords and related keywords with rising interest. For example, "cattle herding" was one of the suggested search terms rising in popularity. Thus, there might be good future demand for an extension-authored YouTube video on cattle handling.

Additionally, the geographic locations of search originations can be determined with YouTube Search. For instance, this feature allows the user to assess relative YouTube search interest by country and state within country. Figure 2 displays the relative search interest on YouTube for "cattle" on a state-by-state basis for the period from 2008 to April 2013. It reveals that relatively greater interest in this search term on YouTube is coming from the midwestern region states than other parts of the country. This ability to dissect searches into state-level data can further assist content providers in determining subjects of greater interest to a particular state or region.

**Figure 2.**
Google Trends YouTube Search Interest by State for Cattle as a Search Term, 2008 to 2013

Monitor Viewership of Related YouTube Videos

Another possible method of determining in-demand topics for future YouTube uploads is to see what topics are more popular on related YouTube channels and videos. For example, the UTAnimalScience
YouTube channel (http://www.youtube.com/user/UTAnimalScience) contains 45 videos in its Tennessee Cattle Lane playlist comparable to those on the MSUBeeFBeefCattle channel. General topic areas resulting in the greatest numbers of views in this playlist are in the subject matter areas of cattle reproduction, nutrition, and facilities.

Besides determining the popularity of various video topics, it is also relevant to determine topics for which there is a dearth of Extension-authored content on YouTube. Popular general topic areas may suggest that there is a demand for videos on that topic area, and holes in these areas for specific topics can then be identified. Demonstrations of cattle management practices are relatively popular on YouTube, and there is a general lack of Extension-authored YouTube videos on freeze branding cattle. As such, this topic quickly became the most watched video on the MSUBeeFBeefCattle YouTube channel.

When determining relative popularity of videos, be sure to note how much time has elapsed since they were uploaded. A relatively new video may have fewer views but a greater viewership rate over time than older videos. Do not discount a newly posted video topic as being unpopular until it has been online for ample time to reasonably make that determination.

**Conclusions**

As social media becomes more integrated in American society, YouTube takes on greater importance as a medium for Extension to connect to its clientele. Providing YouTube content that is in demand will further the reach of Extension. Google Trends and YouTube monitoring can help determine what topics are needed when developing Extension-authored YouTube content to ensure that optimal programming reach is attained.

**References**


