A deep dive into TikTok

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ABSTRACT

MBARI shares its deep-sea video library with the public to educate and inspire individuals to care for deep-sea animals and the ecosystems they call home. TikTok is a platform that gives us the ability to reach a new demographic. During the ten-week internship we hoped to determine what variables most influence video success on TikTok. We found that increased posting and variation in content resulted in increased engagement. While more data still needs to be collected to make a definitive conclusion, visuals seem to be the most important variable determining video success.

INTRODUCTION

Studies have found that the general public feels at best ambivalent and at worst fearful toward the deep ocean.[1] A lack of interest in the deep sea suggests a lack of interest in protecting it. MBARI's Information and Technology Dissemination Division (ITD) vision states, "We envision a world where people understand that they are connected to the ocean and its inhabitants and feel informed and empowered to act on behalf of ocean health." MBARI works to achieve this vision by sharing our video archive and research findings with the public. As people are exposed to MBARI content, it is our intent that they will connect with the deep-sea animals that they see. In turn, this will prompt them to learn more about these animals and encourage stewardship of the deep sea and its inhabitants.

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[1] Alan J. Jamieson, Glenn Singleman, Thomas D. Linley, and Susan Casey. "Fear and loathing of the deep ocean: why don't people care about the deep sea?." *ICES Journal of Marine Science* 78, no. 3 (2021): 797-809.

Social media plays a crucial role in this communication strategy by making our deep-sea video library more accessible to the general public. TikTok, in particular, has been identified as a platform with great potential for expanding MBARI's demographic reach. The Pew Research Center reports that roughly half of teens are on the internet almost constantly and that 97% use the Internet daily.[2] They also say that 67% of teens are on TikTok.[3] This makes TikTok a platform with a significant opportunity to connect with future generations of potential ocean stewards.

The TikTok algorithm is unique in that the majority of video views come from non-followers. The TikTok algorithm looks at all app users, identifies individuals it thinks would most likely engage with a video, and pushes that content to them. This makes connecting with people not already following MBARI on social media easier. The effects of this algorithm can be seen (Figure 1) through the rapid growth of MBARI's TikTok account. MBARI launched TikTok in January 2022, and our account quickly catapulted to 80,000 followers. This growth is evidence of the success of TikTok's algorithmic targeting, which continues to push MBARI's content to new viewers.
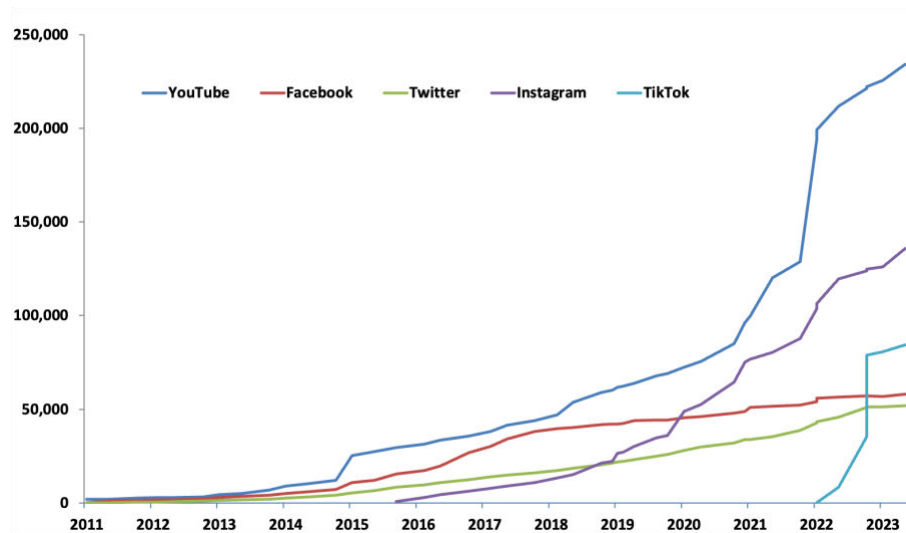

Figure 1. MBARI's social platform growth over the last twelve years. The x-axis displays year and the y-axis displays follower count. The light blue line shows MBARI's rapid TikTok growth from zero to 80,000 followers in under a year.

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[2] Emily A. Vogels, Risa Gelles-Watnick, and Navid Massarat. "Teens, Social Media and Technology 2022." Pew Research Center. August 10, 2022. https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/.

[3] Vogels, "Teens, Social Media."

While our follower count grew rapidly in the first year, it has plateaued in the last several months. During the ten-week internship, our central goal was to increase engagement with our TikTok content and find new ways to grow our audience. Within this broader goal, we hoped to isolate variables that lead to videos going viral. The more engagement our TikTok videos receive, the more people learn about the amazing animals that live in the ocean and hopefully feel inclined to protect them.

STRATEGY AND PRODUCTION

The first step we took to grow our account was to increase posting from 3-4 to 5-7 times a week. With more posts, there was a greater possibility for a video to go viral, and more data generated that would help us to determine what variables contribute to post success. We also varied which days of the week we would post, hashtags, posting time, and caption length to better understand which factors lead to more engagement.

We continued posting our regular content—stitching clips from our deep-sea video library and adding TikTok audio. However, I also created three videos adapting MBARI's Animals of the Deep (AOTD) series for TikTok and three videos focused on the MBARI internship. For AOTD on TikTok, I rewrote the YouTube video scripts, edited animal clips together that were timed with the scripts, and worked with on-screen talent to create engaging content in the unique style of TikTok. These videos differed from the YouTube versions in that they were much shorter, in vertical format, and featured an on-screen host. Whereas most of our TikTok content only has information about the featured animal in the caption, the AOTD onscreen hosts share facts about the animal throughout the video. The intent being that viewers learn about the unique attributes of the featured animal and connect people to the inhabitants of the deep sea.

My internship focused content included a voice-over video from my day at sea, a video showcasing a mechanical engineering intern project, and an intern goodbye lip sync production. These videos all showcase young people involved in ocean research and, as a collection, emphasize the importance of interdisciplinary collaboration in ocean science. TikTok was an ideal platform for these intern videos because of the younger audience, who may be future intern candidates.

These three intern videos along with my three AOTD videos furthered MBARI's goal to educate and inspire by expanding the focus of our TikTok content and including information in the body of our videos. The varied content also provided insight into how different content types are favored by the TikTok algorithm, which was valuable to the development of a growth strategy. These two series each have a featured playlist on our TikTok page.

ENGAGEMENT

Our central goals were to increase engagement and identify the attributes that contribute to increased engagement. The latter goal proved challenging as it was difficult to isolate success variables, and the majority of our videos had only between 1,800 – 4,800 views. The short period of time, in combination with low variation in views, resulted in no definitive patterns emerging in the data. However, we did notice that videos with species names in the caption or the hashtag "oceanvideo" were more likely to be categorized by the algorithm. However, not all videos with those attributes received categorization, and of the ones that did, many still received an average amount of views for our page. Thus, this is not a guaranteed way to increase video engagement.

During the 10-week period, we had two videos with 30k+ views. While variables like posting time, days with consecutive posts, and hashtags differed, the spacing of the subject and the movement of the animal across the screen were noticeably similar (figure 2). This attribute is shared with many of MBARI's other most-watched videos. However, this is difficult to replicate as the MBARI video library has a limited number of videos that meet this visual criteria.
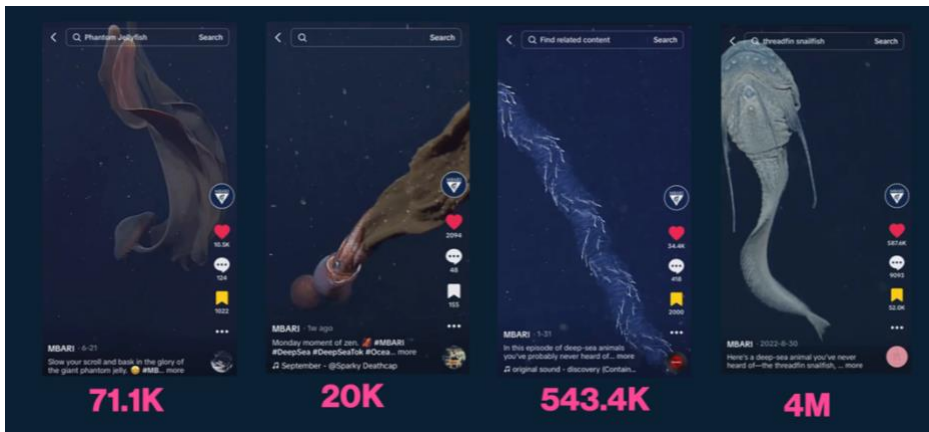

Figure 2. The two right images, *Stygiomedusa* and a *Gonatus* squid with her eggsheet, are MBARI's two best-performing videos on TikTok this summer. The two images on the left, *Helicosalpa* and *Careproctus longifilis*, are two of MBARI's best-performing videos ever. The pink numbers underneath the images represent the views the video had at the end of the internship period. All four animals move across similarly to each other.

We also found that the AOTD and internship content I made that had human subjects received views on the lower end of our average view count. It is unclear if this is a result of these videos differing from our regular content, a failure to provide enough metadata for the algorithm to know how to market them, or simply that our audience is more interested in animals than humans.

While we were unable to identify key repeatable variables for video success, it is clear that our increased effort substantially increased engagement. In reviewing analytics that compared engagement during this ten-week period with the previous ten weeks (figure 3), our views were up 33%, likes 96%, comments 78%, and shares 112%. We've identified these statistics to be the most important because they represent people interacting with our videos and connecting with the content they see on-screen. Thus, these numbers are evidence that increased posting results in increased reach.
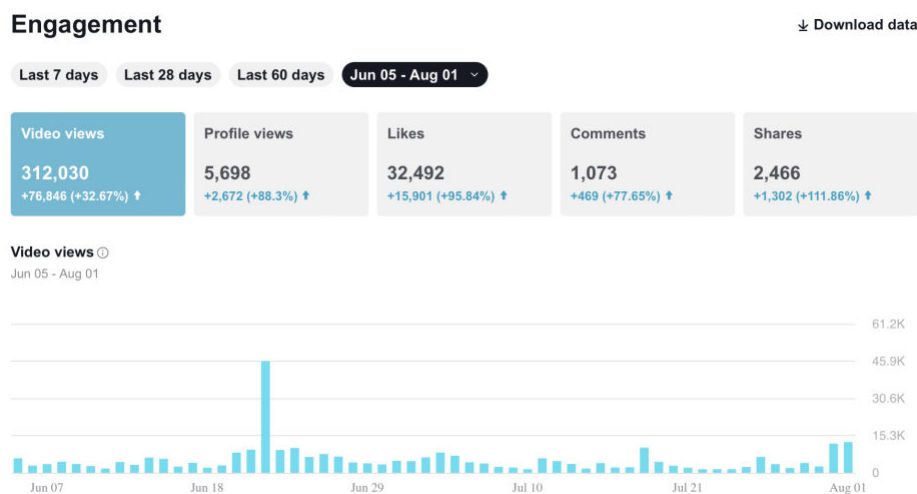

Figure 3. TikTok generated this figure depicting MBARI's TikTok engagement during the ten-week internship period in comparison with the previous ten weeks. Account engagement was up 30-112% in all categories. This demonstrates that increased effort leads to increased engagement. The y-axis of the graph shows view count and the x-axis shows days. The Stygiomedusa video caused the spike in June and the mother Gonatus squid with her egg sheet caused the spike in the beginning of August.

CONCLUSIONS

TikTok remains a platform with great potential to connect a new generation of ocean stewards to the deep-sea. The TikTok algorithm is hard to predict, but as we've found more frequent posting

results in greater engagement, continuing to post regularly will be essential to increasing our audience. We should also continue varying our content and trying different formats to see if we can find a video formula that consistently gets more views. Specifically, I think experimenting with text on screen that has accompanying narration and photo carousels could help increase views and engagement. With a greater pool of data and more varied content, it seems possible patterns may emerge that will make clear what TikTok content MBARI should focus on.

References

Jamieson, Alan J., Glenn Singleman, Thomas D. Linley, and Susan Casey. "Fear and loathing of the deep ocean: why don't people care about the deep sea?." *ICES Journal of Marine Science* 78, no. 3 (2021): 797-809.

Vogels, Emily A., Risa Gelles-Watnick, and Navid Massarat. "Teens, Social Media and Technology 2022." Pew Research Center. August 10, 2022. https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/.