

Analysis of the Number of Likes obtained by Sending Short Videos

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Abstract. The Internet is now an important part of people's lives. Short video delivery is also an important branch of online activities. Getting more attention and likes is also an important purpose of sending. Based on the "like" data of videos, this paper focuses on the situation of attention in different periods and makes a statistical analysis of it. The data used in this paper mainly comes from TikTok. After statistical description of the data of different time periods of the same type of videos, finally the conclusion is drawn: posting at 8 o'clock or 24 o'clock to get more likes within one hour after sending the video, preferably not at 3 o'clock or 4 o'clock. Posting at 8 o'clock, not at 19 o'clock, to get more likes within five hours of sending a video. The results could provide some guidance or reference for online video publishers on when to post.

Keywords: Internet; video; attention; sending time; the number of "liked".

1. Introduction

Now short videos develop rapidly. There is a survey of the report of the data displays that the likeness of video Apps increase more quickly these days. In a broad sense, the communication effect refers to all the influences and results of mass media activities on the audience and the society. From the micro point of view, the communication effect of information focuses on the persuasive communication effect, which refers to the changes in cognition, attitude and behavior caused by the communication behavior with persuasive motivation on the receiver [1]. TikTok online in September 2016. Despite it being online time is short. It has been downloaded 2.5 billion times.

The number of likes means there are how many people like the video. It can control the amount of snow. If the number of likes increases, the amount of snow will increase too. Music is an infectious and expressive means, which can influence the browsing mood and viewing atmosphere of the public through the potential emotional rhythm, enhance the public's sense of presence and engagement, and even reach the stage of high-level empathy, thus stimulating the user's recognition of the content information [2]. So the user activity of Tik Tok has increased. Pursue fast and efficient lifestyles. Results in people have no more time to watch TV and read books. The report displays that by December 2018, Tik Tok's online population peaked in three phases. Respectively are 6pm to 7pm, 9pm to 10pm, 12am to 1pm. And from 6pm to 7pm, users were most active on Tik Tok [3].

Social media has become a mainstream information exchange platform, mobile video and mobile shopping have high activity and penetration rate, and form the consumption intention. However, there are also some phenomena that users have the consumption intention when searching for information, but give up the purchase before the completion of consumption [4]. The fast rising of activity users gave any merchants opportunities to sell commodities. Before that merchants use the circle off-rends to promote sales. However, it only got a bad result. Tic Tok told the merchants to sell sales when they are streaming life. The data said that in July 2018, there's an obvious effect of the first 100 shopping cars uploaded in Tik Tok. On November 11th, the people who dredge the function-shopping car, reached 100 thousand units. Transfer to money accumulated by over 200 million yuan. In 2020, the sudden outbreak of COVID- 19 led to a large number of unsalable agricultural products. In order to open sales, a number of county leaders as anchors live to bring goods, to the national Internet users

to recommend local agricultural products [5]. This shows that the short video apps also can do something help government.

Compare to the movies, Litman studied the influence of these film industry decision factors on the box office with economic methods, and found that production cost and rating always had a positive impact on the box office of a film, but some factors affecting the box office of a film changed with different years [6]. Some factors are external to the industry, such as the epidemic, demographic changes and macroeconomic trends. Some influences come from within the industry. Different film production, distribution and screening decisions all have an impact on the box office [7]. The same of videos and films is the time how much a video or a film takes. Too short a film length may affect the expression and presentation of the film content, and too long a film length will affect the screening of the cinema. Of course, there are some examples of long but high screening [8]. Recording the literature 8, there is also a different point between them. The videos cannot take much time, if not people have no patient to watching them [9].

To study the number of likes and time's effects can have the effective help with video promote. Posting a video during peak user activity will increase the number of play and more people will watch the video. Therefore, the number of likes and comments increases too.

2. Method

2.1. Mathematical Sources

First of all, in order to achieve the function of analysis, it is necessary to find video authors with a certain number of followers. The author of the videos from which the data of this study came is whose video works are very popular on Tik Tok. The author has been working on Tik Tok for more than two years and is a celebrity in similar video jobs ranking among the top five in Fujian province. This avoids some special cases such as the author being new. At the same time, because the author is a mature video worker, each video will be pushed to a large number of viewers, so the data this paper gets is more discussable. The author posts the same type of video works on Tik Tok every day and got a lot of likes, so this paper can get the most authentic first-hand data and materials from there.

2.2. Data Source

Since the videos posted by the author are all of the same type, this paper is not going to take into account the error of the data due to different video types. The variable this paper selected is the time. This paper took nine videos from the author's massive videos [10]. These videos were posted at midnight. Record the number of likes for each hour until the next midnight. Then through the collation and analysis of these data, the conclusion is drawn.

2.3. Method

At first, based on raw data, this paper can calculate the average number of likes per hour for 9 videos. To reduce the error caused by special cases, this paper subtracts a maximum and a minimum, and then calculates the average data. In this way this paper can know when to post a video it can get the most likes within an hour, and also know the least. Then add up the average number of likes in the five hours after each time, get the number of likes in the five hours after the video was posted at different time points. It can refer to the results of this data to get more attention.

3. Results and Discussion

At first, it is started by finding the right video author on Tik Tok who posts the same kind of videos on the internet. It's a time-consuming job. Finally, it's lucky enough to contact a star author in Fujian province. Out of 398 videos in the last year, nine midnight posted videos were identified. For each video, record the number of likes it received per hour from the time it was posted, for a total of 24

hours. Time is the variable here. This paper can get the data from Table 1. Using the data, it's clear which hour each video gets the most likes, and least.

Table 1. “Liked” in each hour in first day

Time(o'clock)	1 st V	2 nd V	3 rd V	4 th V	5 th V	6 th V	7 th V	8 th V	9 th V
1	857	479	406	272	325	262	425	579	692
2	517	295	264	148	225	112	276	402	484
3	339	163	117	99	163	50	153	240	358
4	297	148	96	74	97	33	86	160	263
5	264	117	107	59	87	44	94	152	191
6	287	138	125	72	124	49	113	208	271
7	572	229	190	121	206	66	162	360	523
8	1035	317	276	188	322	129	279	536	933
9	1171	501	433	246	444	159	262	701	1192
10	1106	456	393	239	381	162	329	702	843
11	830	379	330	226	312	150	322	629	623
12	695	278	283	202	288	130	258	638	663
13	650	220	275	203	243	114	263	564	621
14	498	189	219	167	200	109	200	399	537
15	376	180	217	119	190	69	190	288	478
16	354	169	195	110	167	93	199	267	515
17	345	165	166	122	125	85	167	612	591
18	336	146	150	84	140	81	155	600	416
19	361	112	105	95	128	61	183	373	406
20	220	85	114	97	88	66	143	280	399
21	196	79	108	65	109	74	140	235	354
22	208	55	186	76	119	80	111	213	453
23	240	169	215	74	139	74	210	296	832
24	358	165	185	51	181	51	247	196	644

Although the information can be seen from the numbers, this paper can make the data from the Table 1 into a figure. It's easier to see in a figure. So take above set of raw data as a line graph (Figure 1).

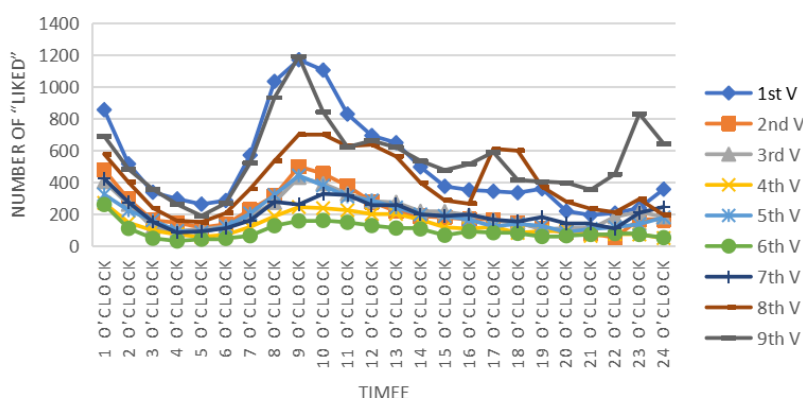


Fig 1. “Liked” in each hour for each video

Figure 1 gives a clear picture of the trend in the number of likes per video. Here's what happened: Out of the nine videos, five videos had the highest number of likes at the hour from 9 o'clock, three at the hour from 1 o'clock, and one at the hour from 10 o'clock. The lowest number of likes came at the hour from 4 o'clock (3 videos), 5 o'clock (3 videos), 21 o'clock (1 video), 22 (1 video), and 24 o'clock (1 videos). Apparently 8 o'clock and 24 o'clock are the better sending times because there

will be more likes in the first hour from sending. Inversely it's best not to send at 3 o'clock and 4 o'clock because there will be very few likes in the next hour.

The variable will help to study when to send the video to get more "liked". This paper can know "liked" in different videos at different times in above charts, and then count the average by subtracting the biggest number and the smallest number to reduce the error. Figure 2 is the average number of likes per hour for 9 videos.

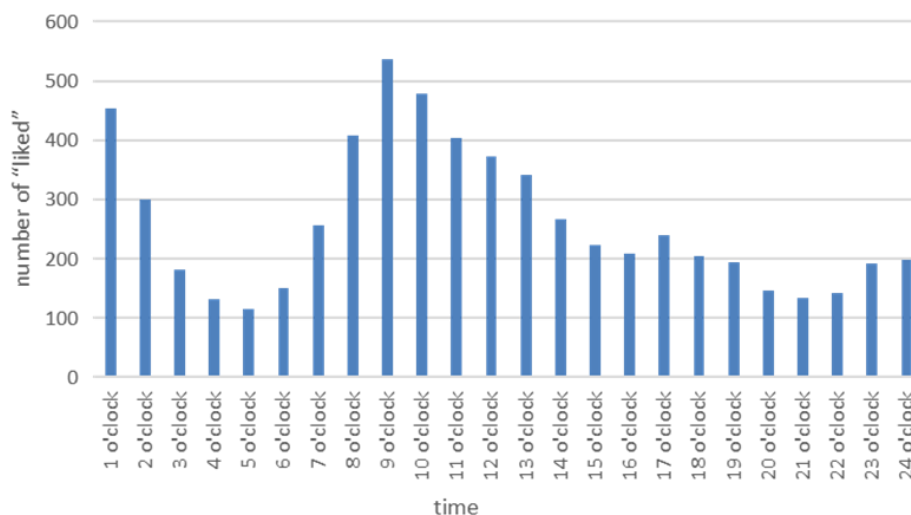


Fig 2. "Liked" in each hour on average

It's clear that the highest is at 9 o'clock and the lowest is at 5 o'clock in Figure 2. So it's consistent with the above conclusion: sending at 8 o'clock and not sending at 4 o'clock according to the first hour of likes.

It's normal for people to be very concerned about the attention they get after posting a video. So this paper don't just focus on people's likes for an hour, so it can add up the average number of likes in the five hours after each time point to get the number of likes in the five hours after the video was posted at different time points. It can refer to the results of this data to get more attention. So this paper added the average number of "liked" within five hours of each time point to get the number of "liked" it would have received within a short period of time (in five hours) after posting the video at different time points, can get the number in Figure 3.

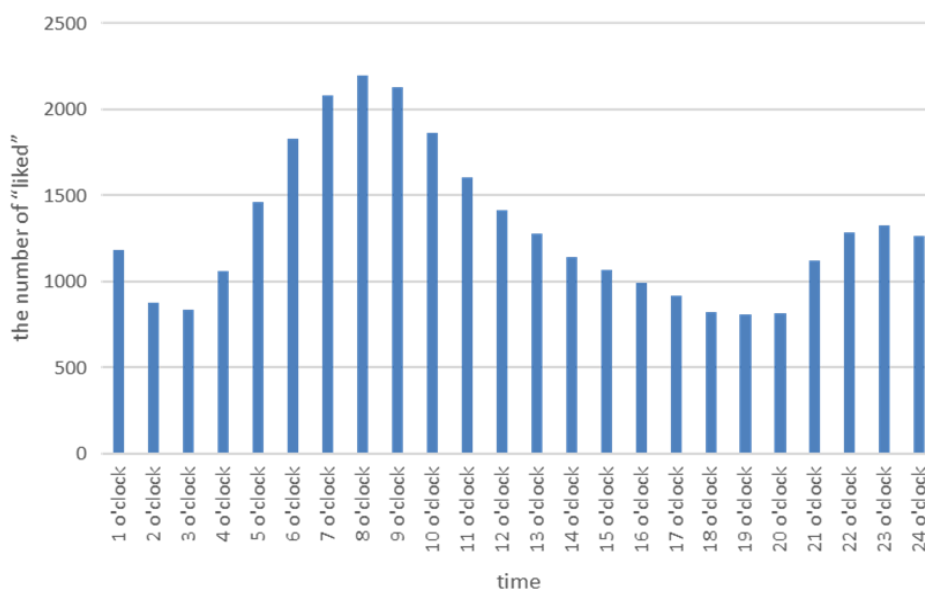


Fig 3. "Liked" in five hours from each hour on average

In figure 3, the highest value is 8 o'clock and the lowest is 19 o'clock. The crest is concentrated around 8 o'clock and 23 o'clock, and the trough is concentrated around 3 o'clock and 19 o'clock. In our daily life, 8 o'clock is the time when most of people start to work, 12 o'clock is the time when most of people eat and have a rest, 19 o'clock is the time when most people leave work, 23 o'clock is the time when most of people rest and relax, while around 3 o'clock is the time when most people fall asleep. These could explain the peaks and troughs.

Zoom in a little bit, the higher values are concentrated in 6 o'clock to 10 o'clock and 21 o'clock to 24 o'clock, the lower values are concentrated in 2 o'clock to 4 o'clock and 16 o'clock to 20 o'clock. Of course, there are various kinds of videos on Tik Tok. Before posting the videos, learning about the likes of various videos is also important, as shown in Figure 4.

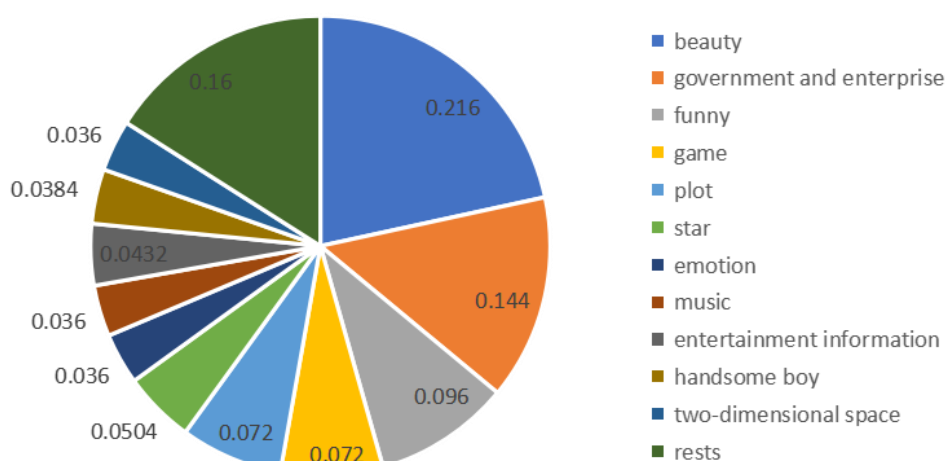


Fig 4. "Liked" for all types of videos

In figure 4, the first three types are beauty, government and enterprise, and funny. And then down the list are game, plot and star. In order to get more attention and likes, the proportion of video types is also an important reference.

4. Conclusion

This topic is about studying the effects of the video when people send it. From the results, this paper notes that posting short videos in 7 o'clock get the most "liked". And posting short videos in 20 o'clock get the least "liked". People should try to post videos around 7 o'clock and 22 o'clock, and avoid posting videos around 2 o'clock and 18 o'clock. It's an important thing for the people who earn money by the popularity of the videos. There is an argument favored in choosing a good time to upload the video. There is an advantage that it is in the good time there is more people watching the video. Therefore, the number of likes of the videos can instant growth. Since the people who upload the video earn money by the number of likes, forwards and comments. In this period of time, their videos became more popular and they also have more fans. Though these processes, they achieve more money.

On the other hand, despite the internet celebrity, merchants also need this study of when people watch the short video. Merchants do broadcasts live on short video apps to earn money. When people watch the short video, they also can see the broadcast live and buy the merchandise. To conclude, choosing a good time to upload videos is important. It can help many people.

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