# A Study on Video Thumbnails Design Attributes and Their Influence to the Outcome of the Video

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*Abstract:* In the evolving landscape of user-generated content (UGC) platforms, where videos have become a preferred mode of entertainment and information consumption, the importance of thumbnails in attracting viewers cannot be overstated. This study delves into the intricate relationship between thumbnail design and video success, focusing on the Chinese UGC platform RED. Specifically, the research examines the thumbnails of @Amber Lulu, a vlogger with a consistent style of video and thumbnails. Analyzing a data sample of 30 videos within the "day in my life vlog" category, the study categorizes thumbnails based on three design elements: emphasis on one person vs. a group, two lines of title vs. one line, and a close vs. far background. The results reveal significant correlations between thumbnail design and video metrics, notably emphasizing the positive impact of a distant background, an emphasis on one person, and the use of two lines of heading. Drawing from communication theories such as visual hierarchy, cognitive load theory, and the effect of image characteristics, the study provides valuable insights for content creators seeking to optimize their thumbnails for increased engagement. This research contributes to a nuanced understanding of the role thumbnails play in viewer engagement on UGC platforms, offering practical advice for content creators to design more visually appealing thumbnails for their videos.

Keywords: Thumbnail, Short Video, RED

### 1. Introduction

In recent years, watching videos on user generated content (UGC) platforms has become the preferred choice for much of the population; people like to go to YouTube or TikTok to receive information or to get entertained instead of traditional forms of media. More demand creates more supply. In 2019, 500 hours of videos were uploaded per minute on YouTube [1]. However, according to research by Chowdhury and Markaroff, in a sample of 2528 videos posted under YouTube's entertainment category, only 0.12% of the videos were able to receive more than 100,000 views; 74.7% of the videos obtained less than or equal to 100 views. The skewed distribution demonstrates the competitiveness in the field — it is becoming harder to stand out. Amongst most video-based social media apps, the thumbnail, or the cover of the video, is the first thing that users see before immersing themselves in the video, which is why they are so important [2]. Using it as a tool to understand the video content, the users decide whether they want to watch the video based on the thumbnail [3]. A good thumbnail needs to tell the users what they will see in the video while making it sound appealing so the users want to click on it. Therefore, a well-designed thumbnail is crucial to the success of a video.

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This study focuses on the thumbnails of one vlogger on the Chinese UGC platform RED. RED is a social media app based in China with over 2 billion users, and a million of them are active daily users [4]. Its initial target users are young, urban females who want to share their experience with fashion and luxury shopping [5], while now it has also expanded to other categories, such as living abroad. When a user logs in to their account, they first land on their "for you page," which features photos or the thumbnails and titles for 4-5 videos, and they decide whichever one they want to access. The study will look at the vlogs uploaded by the user @Amber Lulu, comparing her similar videos under the same category and analyzing the influence of the thumbnail on the viewership and likes of the video. The purpose of this study is to better understand the relationship between thumbnail designs and their influence on the video to allow content creators to make better thumbnails for their videos.

## 2. Method

The study used primary sources and chose one vlogger as the subject of study to be more consistent with the data, taking a data sample of 30 videos uploaded by the vlogger @Amber Lulu. This vlogger has around 63,000 followers, specializing in making vlogs about her daily life as a high school student in America, making the data less influenced by topic selection. All the chosen videos were uploaded within a year, under the category of "day in my life vlog" to minimize other potential influences upon the likes and views of the videos. The study then looks at the different number of likes and views yielded by each vlog, comparing the data to the design of each video's thumbnail. The design of the thumbnails is categorized into three different sections: emphasis on one person vs. no emphasis, two lines of title vs. one line, and whether the people in the photo are far away from the audience. For each category of thumbnails, there are ten videos chosen based on the most fitting of the category. All the data collected for each category has no other obvious differences except for what they are being compared to.

## 3. Results

	A Group Thumbnail vs. Emphasis on one pers Thumbnail	2 lines of heading vs. 1 line of heading	Close vs. far
Average	1335.5 vs. 1638.8	2045.1 vs.	1606.9 vs.
Like		1418.3	3472.6
Average	20326.1 vs. 32470.6	29987.1 vs.	29252.0 vs.
Views		23447.0	46056.2

Table 1: Different Thumbnail Designs & Video Feedback

As Table 1 shows, in the comparison between a group thumbnail vs. emphasis on one person thumbnail, the group thumbnails averaged roughly 37.4% lower than the emphasis on one person thumbnail for views and was also 18.6% lower on likes. While previous research has suggested that users have a bias toward thumbnails with human faces over other subjects, the result seems to say that it is not the more, the better [3]. This can be due to the Cognitive Load Theory. The theory indicates that an excessive amount of information can lead the audience to develop frustration or detachment over the message. While a group photo on the thumbnail can result in information overload, emphasizing one specific person by putting an outline on them can help the audience filter information by creating a visual hierarchy. Instead of an influx of information, the audience can

process the information step by step. According to the Fluency Theory, the human brain finds it more enjoyable when the information can be processed easily [6]. It is possible that adding a focus to the thumbnail makes it more appealing to viewers because it is easier to process.

An even larger discrepancy can be seen in thumbnails with different lines of titles. According to Table 1, the average likes of videos with two-line titled thumbnails are 44.2% higher than that of 1line titled thumbnails. While the number of people in the thumbnail is part of the way that the thumbnail conveys information, the heading is the other way in which information is transferred through text [7]. Since headlines on thumbnails are given a comparatively smaller space budget, there has always been debates of the perfect amount of information being conveyed in the thumbnail headline. While some researchers are proponents of visual embellishments, suggesting that making the thumbnail more aesthetically pleasing can also attract viewers, others are "minimalists" when it comes to thumbnail designs [8]. Like Edward Tufte, who supports the maximization of the "data-ink ratio." In this case, headlines are considered as part of the "data-ink" portion. Its ratio to the rest of the non-data-ink is considered the data-ink ratio. Though thumbnails with a single headline are more succinct and may be more visually appealing, it may need to condense the information and, therefore, reduce the data-ink ratio. On the other hand, thumbnails with two lines of heading have more dataink ratio and are better than the prior, according to Tufte's theory. According to the theory, the more data ink the better. So, it is even possible that three or more lines of heading may result in even more views and likes than two lines of heading. However, it is still worth noting the importance of visual hierarchy in adding headlines to the thumbnail.

There is also a stark contrast between a close and far background. The average liking of a far thumbnail is 53.73% higher than a close thumbnail, while the views are 36.49% higher. According to the "image characteristics effect" [9], the image content in a thumbnail can provide additional attraction to the video through informational and aesthetical value independent from the text message. Unlike textual information, the image suggests visual elements, enhancing the viewer's ability to remember and relate to the conveyed concepts [10]. When a thumbnail features a far-photo perspective, it often presents a broader visual context, allowing viewers to quickly grasp the structural and integrated concepts within the image. On the other hand, a thumbnail with a closer-shot photo may be unable to explain to the viewer the context of the photo as much as a far photo since it contains less background information. Furthermore, a close-shot photo often comes with larger human figures due to scale. For example, faces that normally would have been a small portion in the center of the thumbnail may be enlarged to cover half of the thumbnail. While this is not necessarily a bad thing, it may result in a loss of visual hierarchy compared to a far-shot photo. In far-shot photos, the subject is more often in the middle and is obviously the center of attention. In contrast, when the photo is closely shot, the subject often gets stretched out and takes a much bigger portion on the picture. It is better if the background can contrast the content of the thumbnail, so the latter pops out from the backdrop [11]. This relates to the fluency theory that was previously discussed, which conveys that thumbnails work better with a clearer focus.

### 4. Discussion

Based on the results, there seems to be a strong correlation between thumbnail design and video results. The clicking habits of platform users should be respected, but good content deserves to be given enough opportunity by the platform as well. It would be better if the algorithm could not only rate a video based on its likes and viewership, as they are both heavily related to the thumbnail but also evaluate the video on its content. On the other hand, content creators should put certain efforts into making their thumbnails if they aim for better video feedback. For example, having an emphasis on one person, having two lines of heading instead of one, and having a far background are all elements worth consideration, as proven previously. However, it is important to note the difference

between an appealing thumbnail and clickbait thumbnails. Clickbait thumbnails are thumbnails that do not align with the video content but often draw the viewers in through exaggerated and misleading thumbnails [12]. While such thumbnails can give the content creator more clicks, the inconsistency between what was advertised and what the viewer watched can make the viewer feel unsatisfied, annoyed, and betrayed [12]. Furthermore, clickbait headlines may not be a good idea in the long run. Clickbait news often has less information to be perceived by the audience than news with traditional headlines, which decreases the chance of the news to be shared by the reader and, therefore, lowers the publicity of the video [13]. Therefore, content creators should focus on creating thumbnails that align with their video content.

## 5. Conclusions

Using 30 videos with a similar topic but different style of thumbnail designs, the paper finds that there is a strong relationship between thumbnail design and the likes and views of the video. More specifically, the subject of focus, the number of headlines, and the distance of the background all hold significant influence on the feedback of the video.

First of all, the comparison between group thumbnails and emphasis on one-person thumbnails highlighted a substantial preference for the latter. Group thumbnails faced a 37.4% lower average in views and an 18.6% decrease in likes. Contrary to the common belief that more faces in thumbnails lead to higher engagement, the cognitive load theory suggests that an excess of information can overwhelm viewers. Emphasizing one person in the thumbnail, creating a visual hierarchy, enables a more enjoyable and easily processed experience, aligning with the Fluency Theory.

The study also delved into the impact of different lines of titles in thumbnails. Thumbnails with two-line titles outperformed those with one-line titles, boasting a 44.2% higher average in likes. This finding resonates with the concept of the "data-ink ratio," proposed by Edward Tufte. While debates persist on the optimal amount of information in a thumbnail headline, the study suggests that a balance is crucial. Thumbnails with two lines of heading, maximizing the data-ink ratio, demonstrated better performance, potentially indicating that even more lines could yield higher views and likes.

Moreover, the study highlighted the significance of background distance in thumbnails. Thumbnails with a far background received a significantly higher average of likes (53.73%) and views (36.49%) compared to close background thumbnails. This aligns with the "image characteristics effect," emphasizing the additional attraction provided by visual and aesthetic elements in an image. A far-photo perspective offers a broader visual context, aiding viewer comprehension. The study also connected this preference to the fluency theory, suggesting that thumbnails with a clearer focus, often achieved through a far-shot perspective, tend to perform better.

In summary, the research provides valuable insights for content creators on the Chinese UGC platform, emphasizing the importance of visual hierarchy, balanced data-ink ratios in titles, and the strategic use of background distance for optimal viewer engagement. Nonetheless, with research conducted under the samples from a single vlogger, the small sample size limits the research results. Though this decision was made to limit other factors influencing the feedback of the video, future studies should expand on other types of content creators to better understand thumbnail designs.

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