The Impact of the Interactive New Technology of TikTok on the Pre-production Stage of the Film Industry Chain

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Abstract. In the context of the Internet era, the emergence and development of new media technology has affected many industries in society and spawned the birth and popularity of mobile short video apps represented by TikTok. This interactive new technology of TikTok has a huge influence on People's Daily life and on the traditional film industry and even the newly emerged "new media film industry". This study analyzes the impact of the interactive new technology of TikTok on the pre-production stage specifically. The impact happens in three primary angles. It demonstrates that TikTok is not just in a position to be used by filmmakers for their publicity. Meanwhile, it already started to reverse its influence on the front end of the movie industry chain. Through the method of literature research, this article gives a new definition of "new media film" and "short video", which is conducive to better-targeted research on TikTok-dominated short videos. At the same time, this study also subdivides the impact of short videos on the film industry based on the industrial chain, focusing on the impact on the pre-production stage of the film, which is rarely mentioned in previous studies.

Keywords: TikTok, Film Industry, New Media, Short Video, Technology.

1. Introduction

On March 15, 2022, the Cannes Film Festival Organizing Committee announced an official partnership with TikTok that will provide TikTok users with exclusive backstage, red carpet, and interviews with actors from around the world. TikTok will also host the "First TikTok Short Film Competition" with a jury chaired by a renowned director that will award three related awards during the Cannes Film Festival, which will be attended by Cannes director Jacques Fumau. At a time when short videos continue to impact the film industry, and at the full crossroads of a new video revolution, Cannes' partnership with TikTok is undoubtedly symbolic. The most exciting part about TikTok is the way users can focus on things' motion types under some restrictions, which to a degree usually are seen only in cartoons. This exploration of movement mode is inseparable from the miniaturization and lightweight of the mobile phone as a camera, as well as the strict limit of time and the need to attract the attention of the audience. By comparing short videos to animation, TikTok is just like a lollipop for grown-ups [1]. The significance of short videos for the future of cinema is far from being fully explored, aside from sporadic discussions among a few users. While feature films and short videos will remain distinct for the foreseeable future, the line between short films and short videos may soon be loosening.

This research will use the method of document study to discuss the difference between "new media film" and "mobile short video", in order to identify their own unique characteristics as new media. This study will further advance mobile short video research by helping people discover more about the real relations between TikTok and the film industry. In a future where young people and short video are considered to be more dominant, it is crucial to conduct studies that will help further the knowledge of how the film industry faces it and merge with it.

2. New Media

2.1 New Media Technology

Nowadays, the technology of media and communication allows information to be instantaneously disseminated around the globe. The Canadian media theorist Marshall McLuhan is often held up as a prophet of the digital age [2]. It is also correctly predicted that the advance of communication technology would give rise to discord, division and disagreement [3]. The main point of new media technology is, it generates videos, sound, photos, etc. all into those formats which can be read, stored, and transferred on computers, by using the strings of binary bits with encoded 1s and 0s. In a very short period of time, technology has brought us from the era of analog communication to the digital era, where almost all communication is now communicated digitally, and almost all media industries are digitally dominated, including television and film. Many traditional media now offer their own apps for mobile phones and laptops [4].

The rapid development of new media cannot be separated from the mobile communication technology on which it relies. Especially in the era of 5G, it has been greatly improved in terms of transmission speed, connection speed and file processing. Mobile phone users can easily download and deliver videos just by using mobile communication technology. Ge believes that different from the other four traditional media, new media is produced in the era of rapid changes in media forms, and it is also a media form formed under the support of a new technology system. In terms of means of shooting, communication and distribution, the new media industry has a significant gap compared with the traditional film industry [5].

2.2 New Media Film

Although the main object of analysis of many researchers is "new media film", they do not include TikTok-style short videos, which is an even newer media form. Instead, they mainly discuss online films with a duration of 40-100 minutes, which are only played on the Internet but not in theaters, and are produced based on the online VOD platform.

As Wei stated, mobile devices as a medium of film and pored-over mode for traditional theaters, it's a useful complementary rather than a disturbance. Mobile cinemas have let some audiences of the rare opportunity to watch a film or never step into the theater doors are having viewing opportunities, this form provides a new development opportunity for the traditional film industry, and also points out a new direction to increase the industry revenue [6]. As well as a series of chain reactions brought about by the licensing of cinema films to the network platform. Some of the discussions on new media technology can also be applied to the analysis of TikTok short videos, but obviously, it needs to be combined with the characteristics of short videos.

Similar to TikTok short videos, new media film production personnel will analyze the preferences of users, based on which they can set scripts and plots, and even set scenes and special effects according to people's preferences. In this way, the mode catering to a certain group of audiences has advantages and disadvantages compared with the traditional mode catering to a wide range of audiences [7].

The technologies which combine new media films and TikTok short videos mainly include relying on massive data analysis and realizing accurate marketing with the help of artificial intelligence technology. For example, Youku (one of the biggest new media film online platforms and producers in China) launched a "film-watching emotion simulation" module, which can provide audiences with emotional simulation data to help them develop marketing strategies. Based on "machine learning" technology, this module analyzes the audiences' facial expressions, posture characteristics, as well as background music, tone of lines and scenes in the video content, and then predicts the emotional data of users when watching this video: the stronger the emotion, the more attractive the current video content is to the audiences [8].

3. Short Videos

3.1 Definition

The most intuitive feature of short videos in the form of information is "short", which is reflected in the length of time, generally concentrated between 10s-180s. The length of the video with "second" as the time unit leads to the simplicity and roughness of the overall audio-visual form. In 2013, with the official release of "Miaopai" version 3.5, China's mobile short video industry began to rise. However, in this period, even 4G technology was still in the initial stage, the network traffic fee was too high, so only a small number of netizens tried to regularly use short video application software, and the development of the short video industry stagnated [9]. However, since 2015, due to the continuous development of mobile communication technology and the Chinese government's policy support for the short video industry, the short video industry on mobile terminals has developed rapidly, and this new media form has gradually penetrated into all aspects of social and cultural life.

"Fast food style" short videos often cut directly to the theme, strengthen the emotional rendering ability of music, and use text to play the auxiliary role of information supplement, highlighting the key points. This feature of quickly capturing the audience's attention in a very short period of time is one of the advantages of short videos compared with new media films. In addition, the reason why short video is more popular is that it can meet the audiences' requirements of "time fragmentation" and "casual consumption". With the quickening pace of life in modern society and the shortening of the attention span of young audiences, short videos can better fill in the gaps in people's lives. At the same time, short videos can be watched without having to buy a membership or pay film fees, which greatly attracts the middle and low-income groups who account for the majority of the population [10].

Also, as the main promotion way to guide the public to watch films in China, a short video has become the primary concern whether its content can attract users' attention and occupy users' usage time. Therefore, in the performance of short video content, creators focus more on entertainment. Only when the video is fresh and interesting enough, users will form memory points and spontaneously join the "fission propagation" chain [11].

3.2 Interactive New Technology of TikTok

The research on short videos is more popular in academia. Communication-based on short video platforms has become an important way of new media communication. But meanwhile, there are relatively few studies on the role of the new short video technology side and its feedback effect on the film and television industry. What's more, there is a lack of targeted research on TikTok film and television content in various studies, and studies on short videos generally include various types of videos, covering a rather wide range of areas. On the other side, specifically for a subdivided theme in TikTok on the propagation effect of the analysis, the coverage then seems a little too narrow.

From the perspective of the real environment of TikTok, it can accurately perceive users' space-time scenes and demand scenes. When users are in open public places, the frequency of TikTok uses decreases. When users are in private states, or in other relatively relaxed states, TikTok will increase the strength of the recommendation of quality content. From the side of the virtual scene, TikTok constructs a virtual scene for users through rich beautifying effects such as filters and stickers. The simple interactive interface simplifies the users' usage scene and makes it easy for users to be immersed in it. Before releasing a video, video creators and publishers will pay special attention to the management of the foreground image, process and beautify the video in the managed background system, so as to enhance the attractiveness of the virtual scene and immerse audiences in it [12].

Kaur and Balakrishnan have implied, the "technological empowerment" of short videos has given the public more space for discourse. In addition to receiving information on behalf of the film production companies, the audience can also shoot, edit and release content by themselves to participate in the film communication process. The audiences' rearrangement of the film content

establishes a close emotional connection with the film works, endows the film content with a new meaning, and promotes the secondary transmission of short video content to the film [13].

4. Film Pre-production Stage

In terms of discussing the impact on the traditional film industry, many analyses are superficial, without an in-depth exploration of the real influence mechanism and principle. And the existing research is rarely subdividing the film industry chain, just within the "new media technology for the influence of the whole film industry", how did not analyze the effect on every link of the film industry chain, based on how each link in the gradual change it back to the front end of the film production stage, Therefore, it reshapes the traditional film industry from the source. The impact happens in 3 primary angles as below.

4.1 Investment

This is the very beginning of where most of the film industries work starts from. The emerging TikTok and its interactive technologies are propelling changes in both media and film industries, leading the "newer media" companies to compete with "old media" ones. For instance, Apple and Google hope their Internet TV could replace traditional cable TVs, while Amazon, Netflix, and YouTube are investing in professionally produced original video content [4].

TikTok's promotion of capital makes the "sense of forming" a commercial selling point, while the main content of the film only becomes the carrier used to structure the sense of form. The entertainment function of films is increasing, while the market space of films with serious themes and styles, such as art films and literary films, is getting smaller and smaller. As a result, the entertainment value exceeds the cognitive value and the aesthetic value, becoming a more important evaluation criterion. Even the box office of a film has increasingly become the only criterion to evaluate the success or failure of a film.

4.2 Storytelling

This is the foundation of how a film is built. The modern fast-paced lifestyle increases the time cost. Before the audience has formed a clear understanding of a film and has the desire to watch it, they will not spend time and cost to go to the cinema to watch it. They prefer to "watch" a film in a few minutes on the short video platform. Therefore, this requires video content to break the linear narrative mode and quickly cut to the core of the event in a few seconds, so as to achieve a more optimized dissemination effect [14].

In this atmosphere, production companies tend to use images to communicate messages with minimal text and deep meaning. The convenient design, production and communication based on digital technology enable people to be surrounded by similar elements of TikTok short videos and even pursue the audience to produce the same "simple pleasure" when watching the film as when watching short videos.

4.3 Shooting

Information change speed makes a film, abandoning the traditional editing tools, simplified script, lighting, and setting in traditional production elements, such as through a short video application interface with video editing, special effects template, music library, such as material, realize real-time creation and publishing video, in a shortened process improve efficiency at the same time, and also reduces the cost. Therefore, in the form of expression, more pursuit of lens simplification.

In the era of cross-media communication, people who produce TikTok short videos are pursuing a "sense of cinema", while people who produce films and TV dramas and variety shows are pursuing a "sense of internet digital". Overall, it is still the internet and digitization that are becoming more important. Being out of touch with the internet means being out of touch with the times, especially for video art aimed at a younger audience. The ultimate pursuit of video art -- is the sense of cinema,

based on the content perspective. The second is the sense of the internet digital, based on the audience's perspective. After the combination of these two swords, people believe what they produced will get both good reviews and profit as a double harvest.

5. Conclusion

The typical representative of the application of digital technology is the revolutionary development of the contemporary film. Since its birth in 1895, the film has been closely related to technological progress. From silent film to sound film, from black and white film to color film, from ordinary screen to widescreen, and from plane to three-dimensional. Every innovation in film art is always related to technological progress.

The development of contemporary film digital technology is represented by the rise of computer-generated images (CGI). The digital image no longer relies on the camera to capture reality. Based on this technology, the virtual image and spectacle image is in harmony with the consumer culture, forming a combination. The film's real record of reality is becoming more and more distant, "realism" in today's prevalence of digital imaging is becoming more and more distant too. Science fiction, fantasy, action and other digital blockbusters in the form of "blockbuster" have become the most commercially valuable film genre in the world and the most successful film production mode at present.

Once upon a time, films belonged only to the cinema. Films were made by professionals with professional equipment. Due to the high threshold of equipment, technology, capital, and knowledge making a film is both desirable and unreachable for ordinary people. However, with the development of science and technology, the cheap popularization of different kinds of equipment, convenient and diverse video-play methods, more and more film lovers pick up their own DV, SLR, mobile phone and other digital equipment to shoot short films, short videos, etc. But many people still don't think the images taken on portable devices can be called film, because they haven't been shown on the big screen from the beginning to the end.

Currently, TikTok, as a new thing led by new technology, represents vitality and development direction. However, people's excessive consumption, which is commercialized and entertainmentalized without restraint, may lead to the misunderstanding of the supremacy of form and the lack of humanity, weakening or even losing the thought, rationality and emotion that the media and art form should have. In the new technology image which brings shock and pleasure at the same time, people may temporarily escape from the reality in the dream-like image consumption, and forget the reality of speculation. In the sensory stimulation brought by spectacular images, people may numb their nerves and gradually lose the experience of reality and the perception of emotions.

Every technological progress should be accompanied by the skillful combination of technology and artistic techniques and the improvement of artistic expression. Despite the TikTok trend, films inevitably become more and more "fast food" style, entertainment and superficial. But the cultural value and spiritual connotation that media and art forms should attach importance to, should not be lost due to the prevalence of such new technologies and forms of products. People in the industry should pursue the combination of technology and art, as well as representation and performance, to make TikTok's new technology serve consumer culture and "fast food" style culture. TikTok's new technology will become a driving force to enhance people's spiritual values and one part of new standards in the film industry. As this study has not conducted some practical experiments, the conclusions drawn need to be analyzed according to specific situations in terms of the application of specific problems. In the future, some practical research can be carried out in this direction in the field of short videos and film industry integration.

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