

Research on the Influence of New Media Technology on Internet Short Video –Reels (Instagram) on Indian Youth

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Abstract

With the rapid-fire development of the Internet and smart phone technology, a large number of short videos are participated through social platforms. Thus, videotape content analysis is a veritably important and popular work in machine literacy and artificial intelligence presently. Still, it's veritably delicate to dissect all aspects of videotape content firstly produced by large- scale druggies. How to screen out bad and illegal content from short videos published by a large number of druggies, elect high- quality videos to partake with other users, and ameliorate the quality of videotape on the distribution platform of the entire stoner is a top precedence. Grounded on this background, this paper focuses on optimizing videotape auditing to give introductory features for algorithm judgment, supporting original content and adding the distribution of new content, and strengthening homemade intervention combining algorithm recommendation with homemade recommendation. Four major aspects of the artificial training algorithm model bandy the optimization effect of artificial intelligence on the algorithm in order to give some guidance for the sustainable and healthy development of mobile short videotape reels and its impact on our Indian youth.

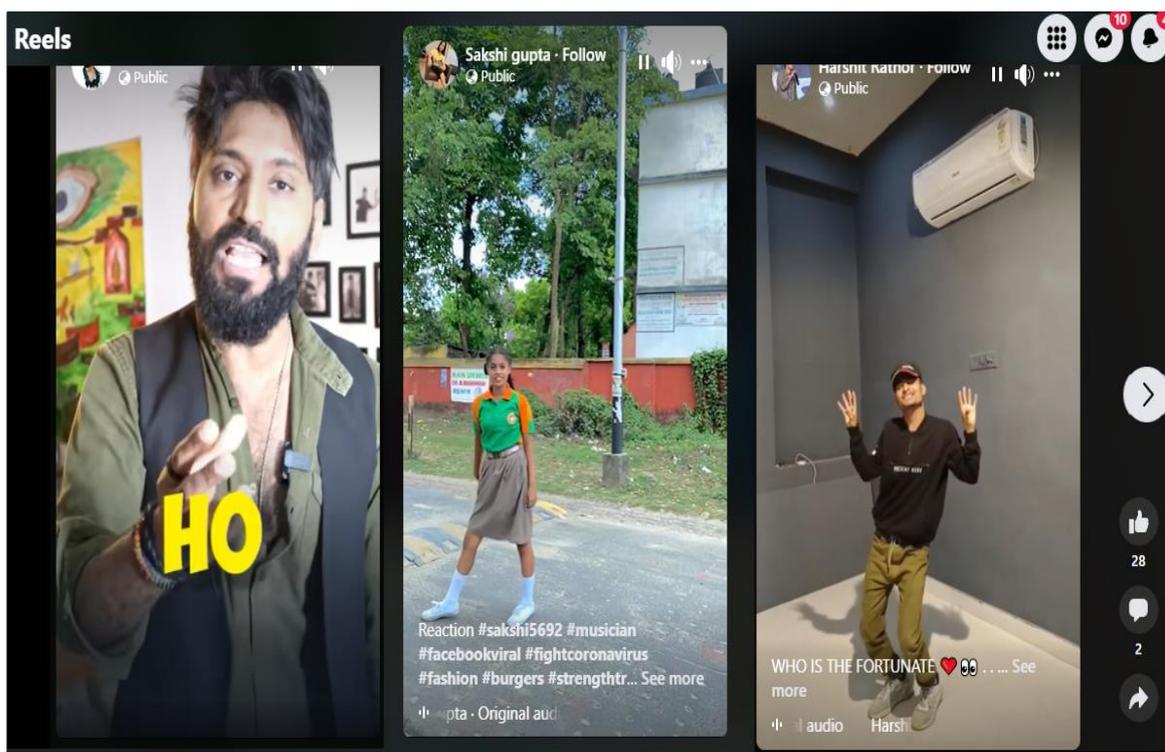
1. Introduction

With the arrival of the period of mobile Internet, people's access to information content is infinitely expanded, and the channel is infinitely accessible. As a new media form, short

videotape is presented to druggies and has a huge stoner scale fleetly. Short videotape has an advanced dimension of information donation, and it's easier for people to accept and spread. With the gradations maturity of mobile Internet, pall computing, artificial intelligence, and other technologies, the intelligent process of media is accelerating. The operation of algorithms in news products has come to a common trend. Major media associations are laboriously developing the use of algorithms to promote the intelligent position of the news production process. The operation of artificial intelligence in new media communication is substantially reflected in machine jotting and intelligent recommendations. The rapid-fire development of media similar to quivers, fast hands, powder keg videos, and microblog videos has handed an effective platform for videotape transmission and sharing, making short videos the main carrier of multimedia transmission(1). The stoner scale and videotape viewing duration are also growing day by day, getting the dependence of businesses on all major media platforms. In recent times, videotape data have exploded and further and further people like to show themselves by transferring videos, attracting a large number of suckers(2). Short videos have come one of the most important and quick ways to come popular and indeed come a means of making a living. thus, further and further druggies publish small videos to publicize themselves or spread information. In the face of massive videotape, how to identify the content of short videotape, distinguish the quality of videotape, effectively recommend it to druggies, and how observe hot events are pivotal(3). Druggies also hope to snappily find the videos that they're interested in, which are fresher, have a unique perspective, fully and coherently present scenes that aren't frequently seen in life, and reduce gratuitous time expenditure.

In recent times, depth literacy has achieved great success in the field of images (4), and colorful transnational and domestic competitions have also spawned numerous excellent algorithms and models. On this base, depth literacy has been applied to numerous fields, including audio field (5). Colorful deep networks developed on the base of convolutional neural networks have greatly bettered the videotape bracket effect (6), completely demonstrating the important part and significance of convolutional neural networks in deep literacy. videotape content analysis requires a fairly complete understanding of the videotape content, which is to look at the videotape content from the perspective of a machine through a camera or videotape rather of understanding and assaying the videotape content as a mortal identity area(7). Besides, the conception of micro video surfaced in 2006. In 2013, “micro vision” and “alternate shot” were launched. In 2014, “beauty shot” and “We Chat mini video ” appeared one after another. In 2016, the first time of short videotape broke out. By 2017, China Mobile’s short videotape druggies had reached 242 million, and the short videotape capital request had accumulated further than 10 billion (8). Really, mobile short videotape has come an important scene of Internet druggies' consumption in the period of artificial intelligence, of which development process and penetration have exceeded the original prospects and controls. It can be said that the significance of mobile short videotape has gone far beyond communication itself and has migrated to all fields and aspects of social life and has come a artistic, profitable, social miracle, and actuality, with subtle, lasting, and far- reaching impact(9). From short videotape to mobile short videotape, the content is more and more dependent on the carrier; therefore, the mobile short videotape is more nearly combined with the recommendation algorithm. Accessible transmission, substantiated information, and interactive consumption are the prominent features of mobile short videotape transmission, while fragmentation of content and elevation of interest accession difficulty are the differences between mobile short videotape and long videotape and filmland and textbooks(10). In the period of mobile Internet, the nonstop expansion of mobile Internet druggies, the nonstop enhancement of the mobile communication network terrain, the civilization of druggies ’ videotape consumption habits, and the practical operation of new technologies similar as

artificial intelligence have concertedly given birth to the hot scene of social short videotape operation in 2017(11). In 2016, a large number of mobile short videotape operations have appeared intensely, the capital request continued to toast up, the number of short videotape content entrepreneurs grown strongly, the short videotape assiduity steered in a period of rapid-fire development, and 2017 was called “ the first time of short videotape ”(12). With the rapid-fire development of social short videotape operations, a series of problems need to be studied and answered. With the maturity of tool attributes and the need of request competition, tool short videos begin to evolve into information and social short videos, and social short videos begin to separate from short videos as an independent bracket. In this paper, short videotape, short videotape bracket, and social short videotape are easily defined, and the development history of social short videotape operation at home and abroad is trolled in detail. Through qualitative analysis, literature exploration, and case analysis, this paper analyzes the transmission mode and transmission effect of social short videotape operation, taking “beautiful firing, ” “ presto hand, ” and “ tremolo ” as exemplifications, and puts forward targeted optimization suggestions for transmission effect. All these give theoretical support for the development of social short videotape assiduity and help the government to effectively control the arising Internet form of short videotape, therefore realizing the healthy and orderly development of domestic short videotape assiduity. Grounded on the forenamed background, this paper starts with the introductory problems of mobile short videotape, summarizes the rise, conception, bracket, and dispersion characteristics of mobile short videotape, and introduces its external appearance. Also, from the perspective of gospel of technology, it applies the shoes of technology tool proposition and technology value proposition, substantially including technology tone- enrichment, autonomy, subject- object dualism, technology determinism, and environmental constructionism, from five aspects of algorithm sense, dispersion subject, dispersion content, followership, and dispersion effect.



2. Definition of Short Video

Academic circles and the assiduity have given different delineations on short videotape generalities, but there are several fairly mainstream delineations. “ 36 krypton ” exploration institute defines it as “ short videotape refers to videotape content with new media as the transmission channel and duration lower than 5 twinkles, which is another recently arising content transmission carrier after textbook, filmland, and traditional videotape, and has the characteristics of low product cost, fast transmission speed, blurred boundaries between directors and consumers, and so on(13). ” Figure 1 shows the software interface of Reels, a short videotape software that's popular each over the world.

Figure 1

Short video software Reels

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2.1. Classification of Short Video

There are different bracket styles for short videos according to different norms, but in general there are substantially the following three groups(1) Tools short videotape Tool short videotape is a videotape product tool developed to meet the requirements of particular product of short videotape, which has the functions of early firing, editing, and processing and links its videotape content, similar as small images and funny shots, through colorful communication channels(16). Tool short videos tend to induce short- term high business in the early stage, but when druggies ’ enthusiasm wanes, the druggies and business accumulated in the early stage will also fleetly drain down. The metamorphosis from photography tools to social videos is a matter that most mature tool short videotape companies are considering.(2) Information short videotape Information short videotape, also known as media short videotape, which is developed to meet the requirements of druggies to find new effects without firing, beautifying videotape and social functions, similar as stormy small videotape and material. Information platforms are good at vertical integration. counting on high- business social or information platforms and furnishing short videotape playback functions, druggies will passively use similar bedded short videotape support functions at high frequentness. ” There's also the problem of lack of social content, so forming a matrix horizontally with other social platforms and guiding each other is a great way for similar platforms. ”(3) Social short videos Social short videos, also known as community short videos, are developed to meet druggies ’ social requirements. They've high stoner stickiness and strong social atmosphere and are represented by fast hands, beautiful shots, and trembles. Looking at these three types of short videos, tool attributes are the utmost introductory attributes of short videos. still, the point of tool products that “ only come when you use them and go when you use them ” makes their druggies less sticky and easy to be imitated, causing them to begin to evolve towards information and social communication grounded on tool attributes in order to seek a longer- term development.

At present, there's no clear description of the conception of “ social short videotape app. ” The academic circles substantially relate to the conception of “ mobile short videotape social

operation.” Zhang Zixuan has simply defined the mobile short videotape social operation, which is lower than 30 seconds long and supports firing, editing, and beautification on mobile outstations similar as mobile phones(17). Huang Weining explained the conception in further detail “ mobile short videotape social operation is an intelligent mobile terminal- grounded operation that integrates videotape firing and social functions, which allows druggies to shoot a veritably short videotape and supports uploading it to the Internet after quick processing, directly linked seamlessly with a variety of online social platforms to realize social functions of sharing and commerce and a multimedia social communication channel integrating words, filmland, voice, and videotape(18). ”

Grounded on the below analysis, the author defines the conception of social short videotape app, which is developed to meet the social requirements of druggies, an operation that can shoot videos, edit, and process videos, and spread through external links through mobile outstations similar as mobile phones with high stoner stickiness and strong social atmosphere.

2.2. The Reason Analysis of Short Video Rising

The soaring demand for fractured information In the period of the data explosion, people are producing data all the time. Facebook updates further than 10 million prints every day, and YouTube receives as numerous as 800 million callers every month(19). On average, videos are uploaded for further than one hour per second. The quantum of information on Twitter nearly doubles every time. further than 400 million microblogs are published every day, and these data are growing continuously. The speed of information explosion on social platforms is seriously out of balance with people’s capability to accept and reuse information. The contradiction between the adding quantum of social content information and the serious lack of attention of druggies has led to a high demand for fractured information. The short videotape easily meets druggies' requirements for fractured information.

Social media demand for new forms of content Whether the Twitter and Facebook abroad or WeChat and Weibo at home, traditional mobile social networking is declining, trying to find new forms to usher in the alternate explosive growth of social platforms. Short videotape has really come a new development direction. Major mobile social companies are laboriously laying out their short videotape strategies. Twitter has launched Vine, Facebook has launched Instagram, and short videotape socializing has extended social scenes, increased social interest, and is gradationally changing people’s social habits and social life.

People's demand for substantiated expression substantiated expression is grounded on the oneness of life individualities. Individuality proves the actuality of “ tone. ” In this period of high- speed social operation of the Internet, people oppose being squeezed and assimilated by the social terrain and continue to seek to punctuate the oneness of individualities. Social short videotape operations are designed to meet the requirements of commerce between people. People want to express themselves in a better individualized way. Obviously, traditional textbook and picture forms can no longer meet the substantiated expression requirements of current druggies. Short videotape emerges as the times bear, displaying the information druggies want to convey exhaustively and vividly.

Adventure capital and advertiser drive Compared with tools and media short videotape operations, social short videotape has advanced marketable liquidity and return on investment. Social short videotape attracts a large affluence of capital. At the same time, the videotape advertising budget of traditional television media is also constantly fastening on mobile videotape, while the videotape advertising coffers(pictures, television plays, variety shows,

and so on) of the head minister are scarce. Social mobile short videos are favored by advertisers due to their high business, high cargo capacity, and long tail effect in transmission. The appearance of finances promotes the growth of the number of social short videotape platforms and encourages the affair of further short videotape quality content.

3. The Development Of Short Video

3.1. The Development of Short Video Abroad

Viddy is the foremost social short videotape operation, which was released in the United States in 2011(20). druggies can use it to capture memory, show off technology, and partake new videotape content, which was formerly seen as the coming Instagram, but due to poor operation, it was adjoined and acquired by YouTube. On January 24, 2013, Twitter released Vine, a short videotape sharing software that supports 6-alternate firing, with automatic videotape splicing(21).

Vine snappily broke into the public eye, and the number of druggies had formerly broken the 40 million mark in 2013. Like Viddy, Vine ultimately failed due to a large loss of important druggies. Instagram, which went public with Vine at the same time, developed in the social short videotape field. In 2013, the print social operation Instagram began to give druggies with short videotape firing function within 15 seconds. Grounded on Instagram's original large addict base, Instagram snappily achieved success in the social short videotape operation field. After that, Instagram launched Hyperlapse, which has a new system of videotape duration contraction and videotape character scene conversion, making short videotape operations no longer limited to the positioning of tone- donation.

At present, Instagram and Snapchat are the two largest social short videotape operation requests at home and abroad. In 2012, Snapchat, a print communicating mobile operation dealing " burn after reading, " introduced a new interpretation of the operation that can record and shoot videotape dispatches. The recently introduced videotape dispatches can last up to 10 seconds and only allow donors to watch them formerly in the operation.

On August 15, 2017, the US technology blog TechCrunch reported that Snapchat is presently testing a new point called Crowd Surf, which combines particular videotape clips from different druggies to produce a flawless videotape effect lasting further than 10 seconds. Snapchat hopes to encourage druggies to continue short videotape social sharing through Crowd Surf. Snapchat and Instagram have both introductory social functions and rich PGC UGC content(22), which can be said to be a short videotape model of strong social and entertainment. Besides Snapchat and Instagram, musical.ly and Mico have come the most promising social short videotape operations abroad(23).

3.2. The Development of Short Video

The embryonic period(2004 – 2011) The birth of short videos in the PC period videotape services has formerly appeared, but the real advance was the establishment of Letv in 2004, which represents the birth of professional videotape websites. Since also until 2011, major domestic professional videotape websites have been established one after another, and short videos in the PC period have been born. Short videos in the period of videotape sharing websites are only a supplementary form of long videos, with strong media attributes and weak social attributes. The emphasis is on the transmission of dispatches. utmost of its contents are directly transporting high- quality foreign content or processing and conforming long videos.

Disquisition period(2011 – 2015) All kinds of mobile short videos started. GIF Express went online in July 2011 and converted into a short videotape community in March of the ensuing time, which started nearly at the same time as Snapchat, the most popular social short videotape operation abroad. In 2013, the operation of seconds for short information videotape was officially launched, and in the ensuing time, new functions similar as watermark and intelligent voice change were introduced. The play of short videotape was constantly streamlined. Meipai, an important product of Meitu Company, went online in May 2014(24). With the strategic thing of “ girls ’ favorite short videotape community, ” Meitu’s beautification operation platform and intelligent tackle channels are backed up to achieve rapid-fire exposure among target druggies. Meipai has acquired a large number of druggies through the original star drainage strategy and also converted from tools to communities through diversified operation styles. At the same time, Meipai has enforced the open platform strategy to form operation ecology with other videotape and image operations, which has continuously explored the uproariousness of functions, contents, and playing styles to form a more active stoner community. In general, from 2011 to 2015, with the popularization of mobile Internet and the conformation of stoner habits in the period of fragmentation, all kinds of short mobile videotape products began to try out one after another, with platforms similar as seconds, beauty, and fast hands gradationally breaking through. Mobile phones began to come firing tools, and druggies began to form the habit of watching short videos grounded on mobile outstations.

Growth period(2016) Mobile short videotape operations are available intensely. In July 2016, a short videotape was financed with RMB 100 million. The tremolo app went online in September, and the pear videotape went online in November. Throughout 2016, the number of short videotape app has exploded. Major Internet titans have laid out the short videotape field in an each-round way. Short videotape has come an investment outlet for a while, steering in a period of rapid-fire development in the short videotape assiduity. At this time, short videotape no longer appears as a supplement to long videotape, forming an egregious milestone with long videotape in content form, creator trait, and operation mode.

Maturity period(2017-present) The social trait of short videotape operations is decreasingly prominent. In 2017, short videotape development has entered maturity. While subsidizing UGC content directors in a large quantum, exploring marketable cashing mode has come an critical problem to be answered for short videotape, which leads to the decreasingly prominent social trait of short videotape, because the commercialization of social products is more mature and abundant than that of tool products. For illustration, after the launch of the mount system in June 2016, druggies can note on applicable content or interact with directors of short videotape content by giving virtual gifts, which directly brings about a direct increase in the stoner freights for the US transaction in the current quarter. In May 2017, the diurnal average videotape broadcast volume of tremolo broke 100 million, while it reached 1 billion in August of the same time. Tremolo developed fleetly in a short period of time, and “ suddenly appeared ” in a number of short videotape operations, which has a great relationship with its social positioning of music. Zhong Danian, director of the China Network Video Research Center, said, “ 2017 is a awful time for short videotape bursts, which makes network videotape enter the most essential social trait of the Internet- sociality(25). As a new trend of the network

miracle, videotape social communication has attracted the attention of the assiduity, academic circles, and investment circles. Table 1 lists current typical social short videotape app at home and abroad.

Table 1

Analysis of present situation of typical social short video app at home and abroad

4. Requirement Analysis of Short Video Content Analysis Algorithm Research

For videotape and audio, homemade inspection generally needs to browse the videotape content fully or take the threat of missing inspection for spot check, while artificial intelligence can dissect the whole content member frame by frame at the same time knot, mark, and deal with it consequently. In the period of digital information explosion, the scale of data is enormous and indeed delicate to count every day. Data have entered into all walks of life and come an important factor of product. New media is the devisee of the period of “ big data, ” and data are important advantage of new media. Data collection, data operation, data analysis, and data application can be used by new media and induce considerable gains. moment’s caption is a typical successful case of using the artificial intelligence algorithm(26). It uses artificial intelligence to record followership’s actions, classifies these actions, and draws a special map for each followership. The further druggies ’ actions and characteristics, the further data collected by artificial intelligence and the more detailed maps drawn. In the interactive link of new media, the stylish commentary are ranked through colorful algorithms, and the wisdom of the public is presented in the comment and post areas so as to more attract druggies to share. In the stage of news recommendation and distribution, the types of news recommendation algorithms are evolving, and these new media intelligent recommendation algorithms grounded on the network are getting new forms of power(27). For the new media platform, although the followership’s screen display position can slide infinitely to refresh new content, the precedence order is limited, and the platform can calculate the most popular content by the algorithm and show it to the followership first.

In the microblog mobile phone outstation, the stoner can have two functions in a short videotape. As shown in Figure 2, the top column of the microblog mobile phone outstation is a row of head pictures, and each head portrayal represents a small videotape released by the stoner. druggies can view the short videotape released by the stoner by clicking on the head pictures of other druggies on the microblogging platform. After the short videotape is played, the coming short videotape will be automatically played. When the stoner pulls down and refreshes, the microblog customer will modernize the new short videotape to the stoner to increase the stoner experience. Each stoner can also publish the videotape recorded or made by himself, partake the videotape, and further the videotape released by others.

Figure 2

Interface diagram of microblog mobile phone client

There are three functions in the background of the system. videotape released by druggies is reused through different depth literacy models, including judging incorporations through theopen_nsfw model of porn, defining all incorporations with further than 80 points as pornographic incorporations, pulling them into the blacklist, defining incorporations with lower than 80 points as nonpornographic, and continuing videotape content analysis. videotape content demarcation originally usesopen_CV to prize frames, also uses the commencement- v3 network model to prize point vectors, and constructs multiple classifiers to classify after birth. Three classifiers are constructed in this content, videlicet, full connection classifier, support

vector machine(SVM) classifier, and LSTM classifier, and the three classifiers are bettered and optimized. Eventually, experimental comparison shows that LSTM classifier achieves the stylish effect, and LSTM classifier is presently online. The third function is to use the bettered vggish network model. First, ffmpeg is used to prize the audio from the videotape. also, it's put into the depth literacy model vggish. After online model bracket, the audio is divided into three orders. Eventually, the classified orders of audio are put into the videotape features to help videotape analysis.

4.1. Algorithm Architecture Design

The flow chart of algorithm architecture design is shown in Figure 3.

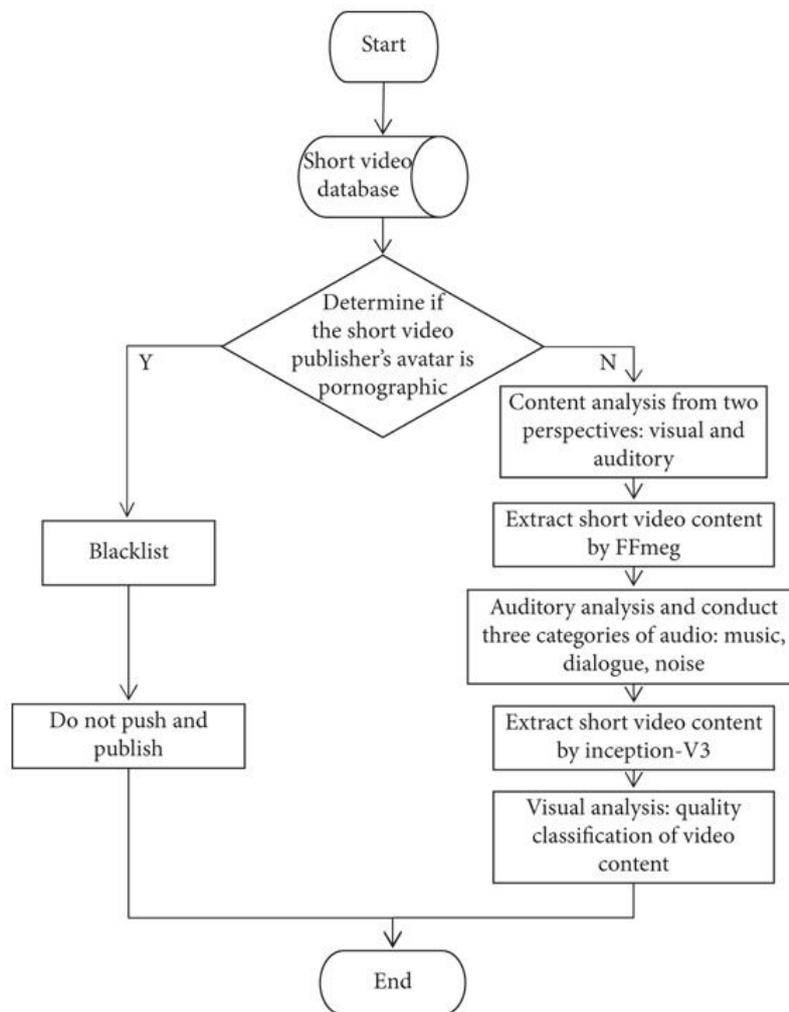


Figure 3

Flow chart of algorithm architecture design

Stoner data analysis involves numerous factors, so it's assumed that's the factor impacting stoner data analysis and is the value of stoner data analysis. The stoner data analysis model is to find the relationship between and y where is a factor that affects stoner data analysis. According to SVM proposition, the establishment of the stoner data analysis model seeks to establish the following expression where x is a factor that affects stoner data, is the i- th sample among k samples, is the kernel function, and the kernel function uses radial base functions, as shown in the following formula

By studying the internal structural relationship of the indicator system, the problem of multiple pointers is changed into a multivariate statistical analysis system of a many pointers. A classic pattern recognition system grounded on statistical styles can include four corridor information accession, preprocessing, point birth and selection, and bracket decision, as shown in Figure 4.

Figure 4

Basic structure of the model recognition system

The operation information base defines each data item that must be saved by the managed device and allows the operation and meaning of each data item. In network topology discovery, the variables of operation information base that may be used are shown in Table 2.

Table 2

Management information base variable

When the host where the algorithm runs is in the prediscovered subnet, the host is named as a flag knot. The variation trend of target value with replication times is shown in Figure 5

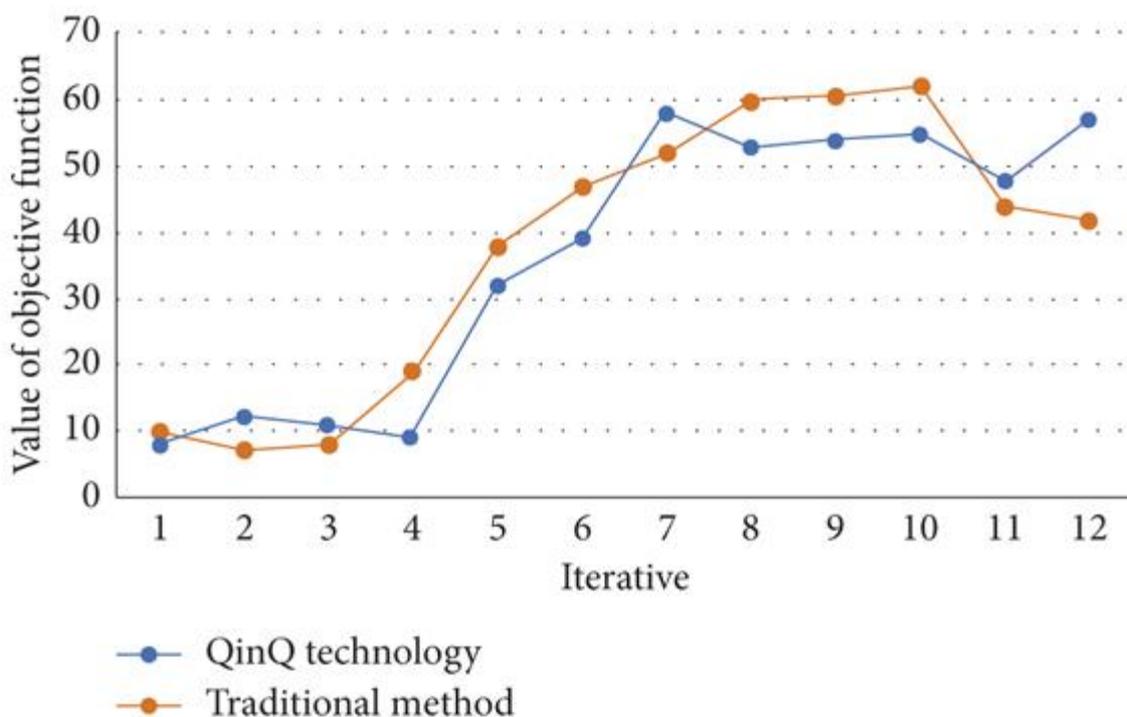


Figure 5

Change of target value with iteration times

After opening the microblog on the mobile phone, the stoner clicks on the head portrayal in the top column of the microblog mobile phone customer and sees a small videotape. thus, the analysis of short videotape content must first determine whether the stoner's icon that publishes the short videotape is a pornographicavatar.However, the uid of the stoner will be directly drawn into the blacklist, and other druggies cannot watch the videos published by druggies who enter the blacklist, If so still, it's necessary to judge whether the videotape content

is of high quality, If it's a non pornographic head portrait. However, it can be added to the high-quality line and pushed to the platform for other druggies, If it's of high quality. In the analysis of videotape content, because the videotape itself contains picture content and background music, the stoner also watches a videotape from both visual and audile angles, so it's necessary to dissect the videotape picture content from both visual and audile angles so that a videotape can be exhaustively judged and anatomized. The audio is uprooted from the videotape by FFmpeg, anatomized and honored, and a depth literacy model is established to classify into three orders music, noise, and dialogue. also, the speech bracket result is added to the videotape features as a point to play a part in videotape bracket.

4.2. Functional Description of Algorithm Framework

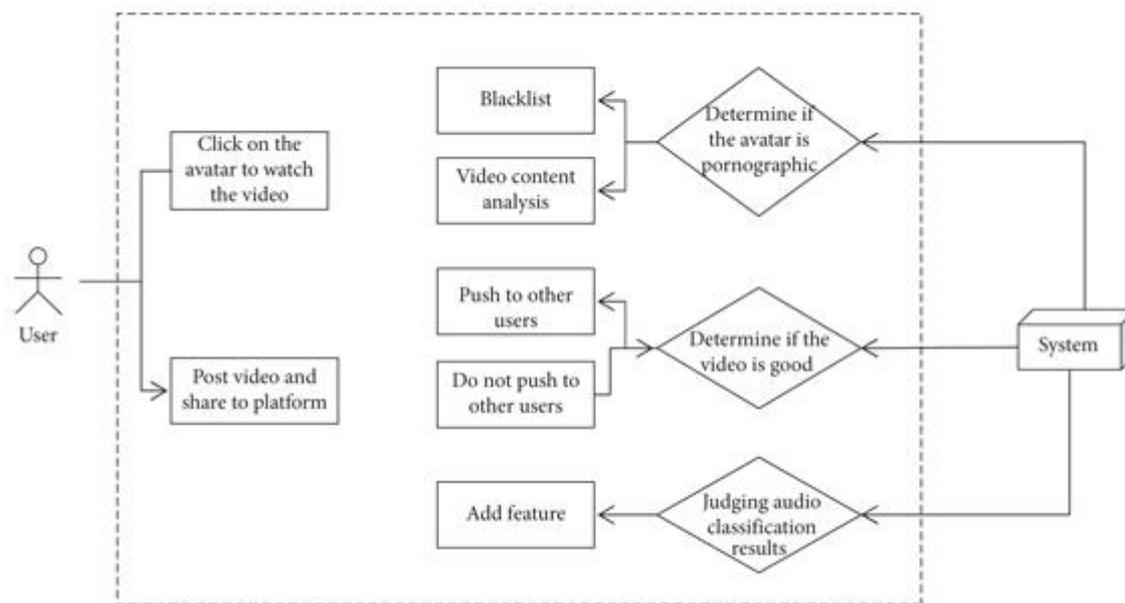


Figure 6

Business use case diagram

According to the description in the section, it can be seen that this algorithm model is used by two people one is the inventor, the inventor of this design, who want to complete the functions similar as data set construction, network structure construction, and training; the other is the stoner of the model, who upload their icon , check and corroborate the model, also publish the videotape they made, and judge through the model. From the stoner’s point of view, the system conditions are as follows(1) Upload one’s head portrayal to the microblog platform for the trained porn image calculating network, the stoner must first upload his head portrayal to see if his head portrayal has been uploaded successfully(2) Release the videotape produced by yourself when releasing the videotape to see if it's released successfully and whether it's pushed to the microblog story sharing interface

For inventors, the package can still be divided into three use cases from a large compass pornographic icon identification, videotape quality bracket, and audio bracket, including the following two use cases(1) Data set construction rooting frames from videos uploaded by druggies and rooting features as network inputs.(2) Training network the training network includes six corridor data reading, network model construction, weight neutralize initialization, data forward propagation, error back propagation, and weight iterative training adaptation and model storehouse. Data reading refers to transferring training data to the input subcaste. Weight

neutralize initialization refers to that full connection(FC) or support vector machine(SVM), or long- term and short- term memory(LSTM) network needs some original weight neutralize values and the like as original values to start training(generally, a value between 0 and 1 is aimlessly initialized). According to the different initialization styles used, the starting values are also different, and the original values frequently greatly affect the final effect of the network model. The last four corridor are necessary for training neural networks.

Inoperative Conditions of Algorithm Framework

It isn't enough and deficient for an excellent in- depth literacy frame to have good function consummation alone, which also has high performance conditions for itself, similar as the pursuit of time performance. There are over 100 million diurnal druggies on microblogs, generating about,000 MB of data sets every day. Faced with massive data, how to dock training time better has come a veritably important problem(28). A system must have strong robustness and practicability, which needs not only to realize functions but also strict conditions in terms of time effectiveness, delicacy, training time and testing time, network generation effectiveness, and bracket and identification time. thus, the inoperative conditions of this system are as follows(1) Network generation time We've about 60 GB of videotape training data and hope to finish the training within 2 hours because if the training time is in progress, the training times will be reduced and the model can not be amended better. remedying a model requires about 200 rounds of training and takes about two days.(2) Bracket training time In the terrain of CAFE caffe, tensorflow without GPU interpretation, we've high conditions on training time. We hope to finish the training in as short a time as possible. Whether the training on CAFE of icon image or the training on tensorflow after videotape frame birth, we hope to finish the bracket training in 2 hours.(3) delicacy and recall rate Because the final indicators of training are different, videos are the proportion of real high- quality videos that we hope to elect. The head portrayal bracket hopes to kill by mistake rather than identify pornographic heads. thus, the head portrayal bracket is substantially TPR, with TPR reaching further than 96, while the videotape bracket is substantially FPR and delicacy, with FPR reaching lower than 1 and delicacy reaching further than 75.(4) Test time It's hoped that the test time won't exceed 10 twinkles.

4.3. Nonfunctional Requirements of Algorithm Framework

5. Analysis on Propagation Mode of Short Video App

The way of information accession, dispersion, and control in new media is empowered by technology. Intelligent algorithms and traditional information dispersion conditioning are integrated to form a brand-new information dispersion network. In a society where media and canons are far and wide, power is decreasingly present in algorithms. Value judgment is grounded on people's values and private understanding, which evaluates and judges a specific object, and its judgment standard is generally the operation value of the object to people. With the nonstop optimization of media network information technology, numerous homemade functions and powers in news dispersion, similar as news indication discovery of intelligencers, content product, and news release of editors, are gradationally transferred to algorithms, and the operation scripts and power compass of algorithms are expanding.

The dispersion of short videotape operations is different from traditional network dispersion, of which rudiments and process have their own particularity, which are substantially reflected in the following aspects the dispersion subject has realized the metamorphosis from “ the philanthropist ” to “ the followership ” part; the happy information is veritably large and easy to spread with egregious attributes(29). The ultrastrong punctuality of communication makes the interactive communication between druggies break the time and

space limit, and the “ recently passed data ” and “ media presented data ” can be presented nearly synchronously.

Druggies of Short videotape operations

The arrival of the mobile Internet period challenges the traditional mode of communication, and “ druggies ” have replaced the traditional “ agents ” and “ cult. ” druggies constantly change their places between the two places of “ agents ” and “ cult, ” and what part they're in depends on what functions they useapp. However, they play the part of “ agents, ” and if they play videos, If they upload videos. ” The “ druggies ” who play the part of “ disseminators ” substantially include ordinary druggies, platform professional druggies, and professional association druggies, corresponding to UGC, PUGC, and PGC, independently.

In the early stage of the development of short videos, the generators were substantially “ individual retail investors, ” not professional individual directors. They only created and uploaded content grounded on individual interests, which is the content product mode of UGC. After the short videotape platform was put into operation for a period of time, the content directors began to separate, and those professional stoner directors with addict base or professional knowledge in a certain field began to separate from ordinary druggies, forming PUGC product mode. At the same time, there are some small groups specializing in product and product. They're generally independent of short videotape platforms, and their content product system is called PGC(30).

UGC is located at the bottom of the stoner aggregate due to its low cost and low threshold, which has a strong trait and a large number of druggies. PUGC content is more precious than UGC because it has accumulated a lot of fashionability and business and has certain marketable value and is located in the middle of the stoner aggregate. The PGC content at the top of the aggregate is well produced and requires a special product platoon, which has high conditions on capital, specialty, and technology and has extremely high marketable value. With the rapid-fire development of short videos, content directors who have accumulated certain finances and experience have begun to change from personalization to association. Some well- developed short videotape companies have inked up numerous implicit content directors to help them grow, develop, and realize their business.

Dispersion Content of Short videotape operations

The competition of new media is fierce, and the pursuit of punctuality and delicacy of news is getting advanced and advanced. At this time, artificial intelligence can be an effective coadjutor. Artificial intelligence can snappily search and sort out the needed accoutrements, check alphabet and typos, and indeed dissect the authenticity and legality of content through data sense. In the period of intelligent media, with detectors as the carrier and big data processing technology as the support, news sources are amended and optimized, while intelligent robots take over the task of collecting and sorting news suggestions.

In the Internet period, the threshold for content product is getting lower and lower, and druggies ' demand for tone- expression has been released. The period of civil content product is coming. At the same time, due to the impact of new media on traditional media, the pursuit of short videotape by capital, and the positive support strategy of Internet titans, outstanding talents from traditional media have poured into the surge of short videotape content entrepreneurship. thus, the short videotape assiduity has steered in a golden period of happy launch- up, which has to show a rapid-fire development in both the volume and quality of content. Due to the different positioning of a short videotape apps, there are different degrees

of differences between content, but it's still substantially concentrated in the compass of pan-entertainment. Figure 7 shows the perpendicular segmentation of short videotape assiduity.

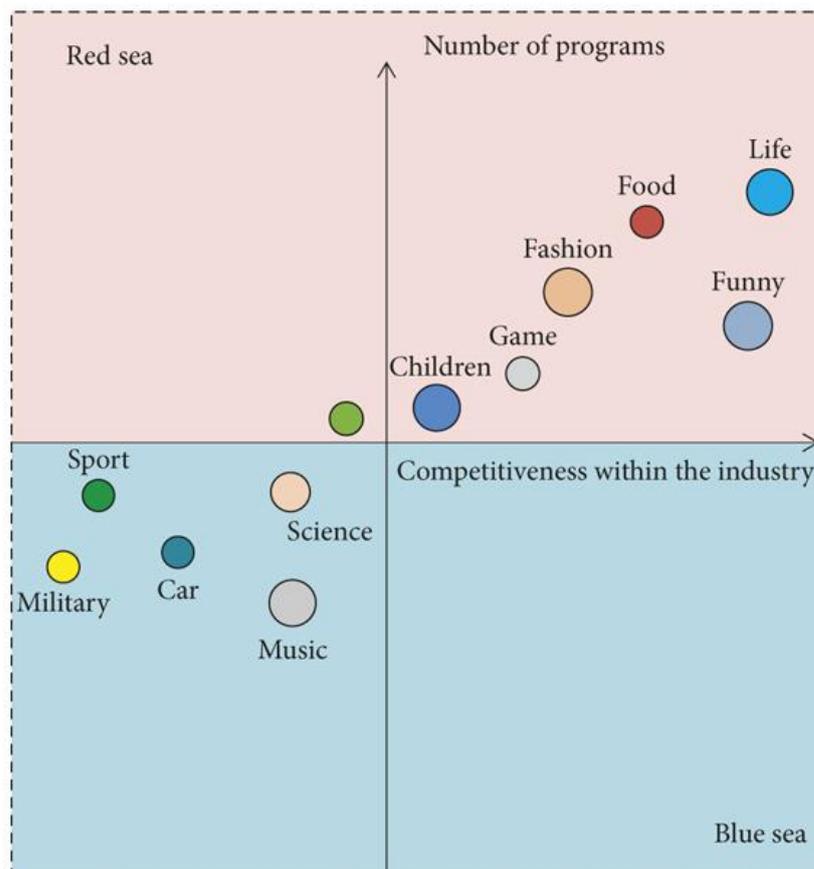


Figure 7

Short video industry vertical segmentation.

Short Videotape assiduity perpendicular segmentation.

Entertainment isn't the long-term driving force for the development of short videos. Only truly nutritional content can bring about the long-term development of short videos as a carrier. For illustration, the content of Papi sauce reflects the current problems and arouses the sympathy of netizens under the funny shell. Rich and high-quality content is the abecedarian driving force for short videotape platforms to attract druggies. The core competitiveness of content will be stressed in the short videotape assiduity. In order to produce further high-quality content, short videos begin to go deep into the perpendicular entertainment field from pan-entertainment. The content in the perpendicular field is decreasingly rich and detailed, and the content value and marketable value in the perpendicular field are stressed. The reason why the perpendicular field has come the development direction of short videotape content is substantially because of the following. First, the perpendicular short videotape content on the request is still at an early stage, and there's huge growth space for both the stoner scale and the followership. Second, capital supports the ecology of short videotape content, enabling further content generators in perpendicular fields to give high-quality short videotape content. The third is that consumers will have further demand for the content of vertically subdivided fields under the background of consumption elevation after forming the consumption habit of short videos.

Communication Channels for Short videotape operations

Communication channels of short videotape operations can be divided into internal channels and external channels of short videotape operations. Internal channels are substantially in the form of forwarding, comment, and shower. External channels are more different and can be roughly classified into five orders online videotape channels, information guests, platforms, short videotape channels, and perpendicular channels. Online videotape channels are generally checked by website editors, and the quantum of broadcast of similar channels is substantially attained through stoner hunt and editing recommendations. private factors similar as Sohu Video, Youku Video, iQiyi, Tencent Video, Baidu Video, Bilibili, popcorn, and other platforms have a great impact on the videotape playback volume.

Still, it'll bring about a significant increase in short videotape playback volume, If short videotape content gets a high- quality recommended position. For illustration, some micro movies will announce in colorful channels to gain implicit observers after they go online, and these people will laboriously search for this micro movie on the corresponding websites. Utmost of the information customer channels get the videotape playing volume through the platform's recommendation algorithm, for illustration, moment's captions, daily express, a little information, Net ease news customer, and UC cyber surfer. All use this recommendation algorithm medium to give videos corresponding markers and recommend them to corresponding stoner groups. At present, this recommendation medium is applied to numerous platforms, similar as netease pall music intelligent recommendation songs and Taobao intelligent recommendation products, which is also one of the unborn development trends.

In order to apply the decision- timber of the decision- making position, it's necessary to have a operation position to manage the diurnal work and an administrative conservation subcaste responsible for the perpetration of safety plans and opinions. In this way, an information security association with a hierarchical structure directly led by the CIO is formed. The security association includes organizational decision- making subcaste, operation control subcaste, and administrative conservation subcaste, as shown in Figure 8.

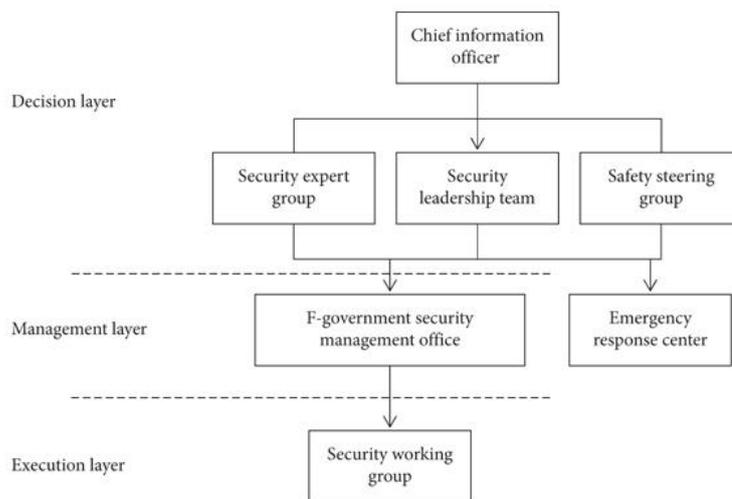


Figure 8

Hierarchical information security organization

Platforms Similar as WeChat, Weibo, and QQ are accessible to meet further people with the same interests. Channels are important positions for short videotape operations to contend with each other, and the important significance of channels isn't only to spread short

videotape but also to grease druggies to search for corresponding short videotape content on the Internet. Some short videotape channels started from live broadcast platforms and were born as derivations. still, since 2014, numerous people have realized that short videotape has further development prospects than live broadcast. further and further short videotape platforms have begun to appear in the public's view. " Alternate Shot " was upgraded to interpretation4.0 on July 28, 2014, and the " Beauty shot " was also launched in 2014, which took only nine months for the number of druggies to exceed 100 million, as well as the foremost small videotape that can be made on the mobile side, pear videotape featuring short information videotape, and watermelon videotape split from the captions.

The emergence of these short videotape channels can not explain that short videotape is a trend rather than just a tuyere. What can really corroborate the correctness of this view is the emergence of perpendicular channels. E-commerce platforms represented by Taobao, Mushroom Street, Gift Talk, and so on can help druggies to understand goods more exhaustively and therefore promote the value- added of deals volume through short videotape. In addition, offline communication channels are also decreasingly being paid attention to by short videos. Beauty shot and tremolo have expanded numerous offline communication channels throughcross-border cooperation and achieved good results.

Typical Propagation Mode of Short videotape App

The study of communication mode has always been the focus of communication studies. From the early one- way direct mode to the after two- way rotation mode, the communication mode has been continuously streamlined and developed with the change of people's communication mode. The fashionability of app in the mobile Internet period has brought people new ways of information dispersion and challenged the traditional mode of dispersion. druggies have replaced " agents " and " cult. "

Individualized expression of druggies has replaced the herd intelligence of druggies. Short videotape app, a new information carrier with attributes and short videotape forms, has brought subversive challenges to the traditional communication mode. thus, it's critical to study new communication modes. Generally speaking, the communication modes of short videotape operations can be astronomically divided into three types UGC's information product mode, indirect update transmission mode, and fission type information transmission mode. The low threshold and fast propagation of mobile operations make it possible for large- scale druggies to produce content. The emergence of media makes this UGC content can be participated and encouraged to each other. As long as the content is enough to attract attention, everyone can come a tone- media. 4 W replaces 5 W, Who(stoner), What(content), Why(provocation), and How(generation mode). UGC's content product mode substantially reflects the change of stoner status.

Indirect update propagation mode refers to the stoner recreating the original videotape content formerly, doubly, three times. n times through shower, opining, encouraging, and other forms to form an horizon less indirect update mode, which reflects the horizon less content creativity of short videotape operation. In addition to the nonstop updating and recreation of content, short videotape operations also have the characteristics of fission information dispersion. As a knot of fission link, druggies assume the binary places of transmitter and receiver and play their own influence and part in the network structure of dispersion.

Suggestions on Optimizing the Dissemination Effect of Short Video App

Artificial intelligence helps new media people to reuse data, while a large quantum of data generated by new media leads artificial intelligence to further grow in this terrain, therefore promoting the nonstop development of new media itself. Under the algorithm medium, news can be produced as long as there are data, templates, and precise processes, and people's subjectivity and action are ignored(31). The news produced frequently gives people the feeling of sameness and *deja vu*. The artificial intelligence algorithm in the new media solves the load extremity of the traditional information dispersion paradigm in the Internet period and greatly improves the work effectiveness of information product, distribution, and operation.

According to the reproduction proposition of communication content, it's easy for people to gain seductive geste pattern information in mass communication content, and the content of media shows nearly all conceivable geste patterns. reproduction of media geste substantially goes through three stages(1) cult pay attention to the geste of characters described in media content;(2) cult believe that this kind of gester is seductive or effective and fete or indeed imitate this kind of geste . When the followership encounters analogous situations in their own conditioning, they will imitate the geste learned from the media. In order to get good communication effect, we need to optimize the source of communication content.

A high- quality content product system Short videos are filled with a large quantum of pan-entertainment content to meet the entertainment requirements of the people. still, the deliberate creation and dispersion of “ three customs ” in order to get on the hot hunt come popular overnight, and attract eyeballs have affected the dispersion terrain of the entire short videotape. In the content analysis of short videotape operations mentioned over, it's set up that vulgar and illegal content only accounts for a small part of the content created by the whole stoner, and there are numerous high- quality and intriguing content similar as conducting life chops. To produce a high- quality content, ecosystem requires the common sweats of applicable government departments, short videotape platforms, and short videotape druggies. Applicable government departments have made clear in advance the illegal and illegal videotape content, and the communication platform will circumscribe the upload and display of similar content. The short videotape platform of government departments needs to use correct values to guide the algorithm. The algorithm will be bettered, and substantiated positive energy workshop that are more in line with druggies' interests will be preferentially recommended to enlarge the influence and appeal of excellent workshop. Directors of head content similar as “ PAPI sauce ” produce short videotape content with positive energy and high interest, which plays an exemplary and commanding part. Vulgar content can only be popular for a while, gaining the attention of druggies for a while. What's really going on for a long time and is extensively circulated is high- quality positive energy content.

Communication colonist Levin, who bettered the videotape content auditing system, put forward the conception of “ doorkeeper ” in “ Channels of Group Life. ” Information dispersion is always carried out according to specific communication channels. The opinions and characteristics of “ doorkeeper ” directly determine whether information dispersion is smooth or not. The mobile Internet period has impacted the “ doorkeeper ” proposition. Some people indeed suppose that the “ doorkeeper ” no longer exists. In fact, the “ doorkeeper ” still exists, but the doorkeeper is more diversified. The government, media, platform merchandisers, and druggies are all acting as “ doorkeepers. ” In order to establish a clean and healthy short videotape community terrain, the government, media, platform merchandisers, and druggies should all play the part of “ doorkeepers. ” The government promotes “ real name system on the Internet ” and tools credit system operation for short videotape druggies. The platform side

pushes positive energy content through specialized algorithms and removes vulgar, violent, and pornographic short videotape content. CCTV and other mainstream media always pay attention to and report the chaos of short videotape content and prompt them to correct it. Netizens laboriously complained and reported bad short videotape content, and multiple subjects made sweats to concertedly ameliorate the short videotape content auditing system.

Enhance stoner media knowledge In the mobile period, druggies have replaced the part of “ doorkeeper ” of traditional media and the part of “ followership ” who passively admit information, playing the binary places of content patron and content receiver. druggies upload vulgar, violent, and illegal short videotape content, and further druggies promote it. This is the source of chaos in short videotape operations, which is also an necessary problem in the early development of short videotape, a new content bearing form. From the source of governance, we need to ameliorate the media knowledge and tone- discipline mindfulness of short videotape druggies and guide druggies to use media converse rationally. Short videotape is formerly an important place for numerous druggies to express themselves and release themselves. It'll be a progressive process for mortal beings to endow machine tackle with tone- knowledge. Machine literacy studies how computers pretend or realize mortal literacy actions in order to acquire new knowledge or chops, reorganize being knowledge structure, and continuously ameliorate its performance. In the field of news media communication, the source law and working principle of the algorithm are reprised in the model frame to form a black box for druggies or for the followership to be calculated by the algorithm. The new media terrain is decreasingly complex. New media people must keep learning in order to keep up with the rapid-fire changes in the overall new media terrain. What's further, the software and tackle machines that meet the multiple requirements of new media people and cult can ameliorate the delicacy of the algorithm, ameliorate the algorithm, and snappily meet the operation requirements of the development of new media at low cost and promote the development of new media. In the period of intelligence, algorithm is power. Artificial intelligence technology not only highlights its advantages and strength in the field of new media but also penetrates into all aspects of mortal product and life. The algorithm is political, and it can not achieve technology impartiality. It has begun to dominate the direction and content of homemade selection in the field of new media.

Data Availability

All the data used to support the findings of this study are included within the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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