

Research on the application of data mining algorithm in photojournalism and short video communication

Yidi Wang^{1*} Yan Song Zhang²

^{1,2}Dalian Polytechnic University, School of Fashion, Dalian, Liaoning, 116034, China

Abstract

Short films and photojournalism are crucial parts of video communication, yet there are issues including poor video integration, inconsistency between short videos and photojournalism, and slow communication speed. In order to evaluate and analyse video communication, this research offers a data mining algorithm. First, the database's images and videos are chosen and analysed using a mining algorithm, and then the indicators are reduced by dividing them into groups based on the specifications for video dissemination. video transmission distractions. The mining algorithm then analyses the video propagation, creates a plan that satisfies the criteria, and refines the plans that satisfies the criteria. Analyse. The integration level, timeliness, and compliance rate of data mining algorithms for video propagation are superior to traditional video dissemination method under specific analysis criteria, according to MATLAB simulation.

Keywords: photojournalism; data mining algorithms; short videos; Video dissemination

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*Corresponding author. Email: wvdvc1314@163.com

1. Introduction

News photography and short video play a crucial role in the realm of video communication, contributing significantly to its advancement [1-2]. However, throughout the process of video dissemination, there is a lack of integration and conformity in the films, resulting in some reputation losses for video dissemination [3]. There is a consensus among experts that the use of data mining methods in the context of video dissemination has significant potential for accurately assessing the level of video integration and the timeliness of transmission. The compliance rate of public opinion [4] is a significant factor to consider. This study aims to explore effective strategies for the dissemination of video content, with a focus on providing adequate support for its distribution [5]. This work presents a data mining approach that aims to enhance the video propagation strategy and evaluate its efficacy [6].

2. Related Concepts

2.1 Mathematical description of a data mining algorithm

The data mining algorithm leverages mining theory to enhance the video propagation scheme and identifies inadequate values within the video material based on the indicators stored in the database, afterwards disseminating the video. The integration of the scheme has been accomplished, and the evaluation of the viability of video distribution has been ultimately determined. The mining method integrates the benefits of big data and leverages the video scheme obtained from the database for quantification, so enhancing the efficiency of video transmission. Assume that I . video fusion is, the video public opinion compliance rate x_i scheme is, the satisfaction rate of video timeliness is set_i , and the judgment function of the quality evaluation p scheme

is $F(x_i \approx 0)$ As shown in Equation (1).

$$F(d_i) = \sum x_i \cap \xi \rightarrow p \cdot (x - y) \quad (1)$$

2.2 Video scheme selection for data mining algorithms

Hypothesis II The fusion function of the video is and the weight $g(x_i)$ coefficient is , then, the video propagation y requires an unqualified video as shown in Equation (2).

$$g(x_i) = z_i \cdot \prod F(d_i, y_i) - y \cdot z \cdot \ddot{x} \quad (2)$$

2.3 Analysis of video dissemination programmes

Prior to implementing the data mining technique, it is essential to conduct a comprehensive multi-dimensional analysis of the video propagation scheme. This analysis should include mapping the video propagation needs to the big data database in order to identify and reject any video propagation schemes that do not meet the necessary qualifications. The database does a thorough analysis using cloud computing, establishing the threshold and indicator weight for the video transmission technique in order to guarantee the precision of the data mining process. The database represents a methodical approach to the dissemination of test videos, requiring optimisation and analysis. When the video stored in the database exhibits a nonnormal distribution, it has an impact on its video propagation scheme, resulting in a decrease in the overall accuracy of video propagation. To enhance the precision of the data mining algorithm and optimise the quality of video transmission, it is important to carefully choose the video communication scheme and afterwards choose the exact scheme to be used. This is seen in Figure 1.

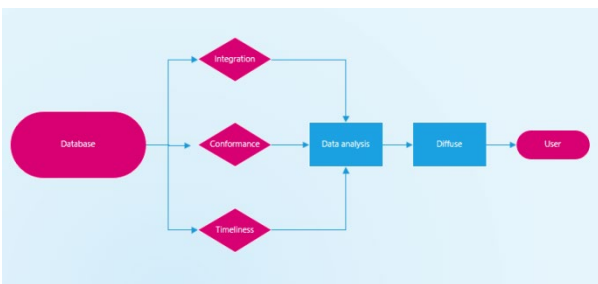


Figure 1. Results of selecting a data mining algorithm

The analysis of video communication schemes indicates that the video communication scheme exhibits a multi-dimensional distribution, aligning with empirical evidence. The consistent alignment of the data indicators suggests that the video transmission technique exhibits robust integration and integrity, therefore positioning it as a

subject of significant examination and research. The mining algorithm used for large data effectively fulfils the standard criteria by means of adjusting the data, eliminating duplicate and negative schemes, and supplementing the default scheme to enhance the overall dissemination of the video content. The enhancement of the dynamic correlation between situations is seen.

3. Optimization strategies for video convergence

The data mining method uses a technique of limited optimisation for the database and modifies the fusion parameters in order to achieve the optimisation of the fusion scheme. The data mining method divides the fusion criteria into several tiers of quality assessment and then picks various schemes in a way that is binding. During the course of extensive mining, the optimisation and analysis of video solutions with varying degrees of video fusion were conducted. Upon completion of the optimisation study, the convergence level of several solutions is compared in order to document the optimal video transmission quality.

4. Real-world examples of data mining algorithms

4.1 Introduction to video dissemination

In order to disseminate high-quality videos, this paper takes different populations in complex cases as the research object, 24 paths, and the test time is 24h, specific users The video propagation scheme is shown in Table I.

Table 2. Video Dissemination Satisfaction

Scope of application	grade	Integration	Timeliness
User I	Advanced users	83.87	81.62
	Regular users	84.37	79.90
User II	Advanced users	89.37	81.55
	Regular users	86.03	83.97
User III	Advanced users	89.68	83.80
	Regular users	84.71	83.62

The video propagation process in Table I. is shown in Figure 2.

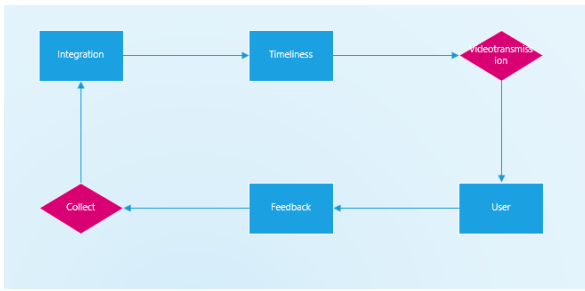


Figure 2. Satisfaction with video dissemination

In contrast to the conventional video propagation method, the video propagation scheme used by the data mining algorithm exhibits a higher degree of alignment with the specific demands and preferences of the end users. The significant level of public opinion conformity contributes to the effective distribution of good energy via video material. The video presentation of the data mining algorithm's dispersion, as shown in Figure 2's satisfaction analysis, demonstrates the superior integration of the algorithm. Enhanced efficiency in transmitting information promptly. Hence, the incorporation of video integration inside the data mining algorithm's video distribution scheme exhibits improved timeliness in communication and a higher rate of compliance with public opinion.

4.2 Video transmission

The video propagation strategy of the data mining method involves video integration, public opinion compliance rate and communication timeliness. Following a comprehensive examination of the data mining technique, a preliminary pre-selected scheme was produced, then subjected to proofreading and analysis. To enhance the precision of assessing the suitability of video communication across several quality categories, it is advisable to use video communication schemes that include diverse levels of content, as shown in Table 2.

Table 2. The Overall Picture of the Video Dissemination Scheme

Category	Satisfaction	User feedback rate
User I	89.68	86.50
User I	85.88	85.92
User III	84.40	89.67
Mean	85.59	86.02
X^{σ}	88.67	83.06
P=3.46		

4.3 Public opinion compliance of video transmission

To verify the accuracy and recommendation fit of the video propagation of the data mining algorithm, Figure 3 is shown.

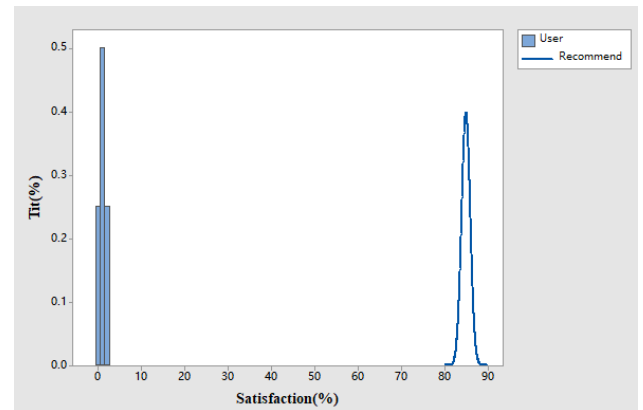


Figure 3. Video dissemination from different users

It can be seen from Figure 3 that the video propagation of the data mining algorithm is higher than that of the ordinary video propagation mode, and the error rate is low, indicating that the video propagation of the data mining algorithm is relatively stable the quality of video transmission patterns varies. The evaluation scheme for the above indicators is shown in Table 3.

Table 3. Comparison of Video Transmission Accuracy of Different Methods

Algorithm	Video blending	Timeliness of transmission	Error
Data mining algorithms	91.67	93.14	2.61
Normal algorithm	82.79	76.08	5.32
P	35.21	34.27	35.10

According to Table 3 The analysis reveals that the usual form of video transmission has deficiencies in integration, timeliness of transmission, and consistency in visual propagation. The observed data exhibits a significant level of inaccuracy. The data mining algorithm exhibits superior video propagation quality compared to conventional video propagation methods. Simultaneously, the video dissemination of the data mining method exceeds 87%, while the accuracy remains relatively stable. In order to further substantiate the superiority of data mining techniques. To enhance the validation of the arithmetic given in this research work, several analyses are conducted on the data mining method, as seen in Figure 4.

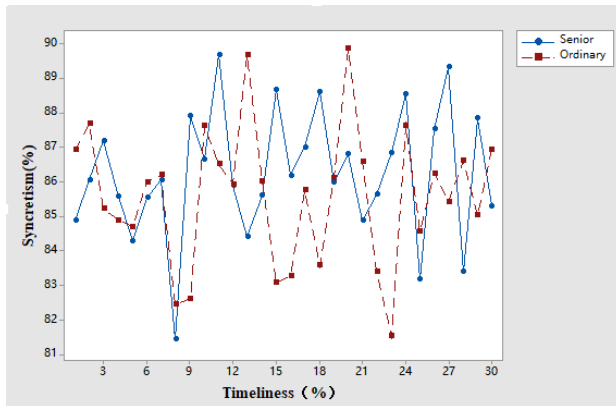


Figure 4. Video dissemination of data mining algorithms

By Figure 4 it can be seen that the entrepreneurial quality of data mining algorithms is significantly better than that of ordinary video communication, and the reason is that data mining algorithms optimize video communication. It is more in line with the guide of positive energy in society spread by video.

5. Conclusion

This work addresses the issue of suboptimal video communication by proposing a data mining technique and enhancing it via integration with a big data system. Simultaneously, a comprehensive examination is conducted on the aspects of video quality, threshold innovation, and user fit in order to establish a robust internet video platform. According to existing research, the use of data mining algorithms has shown the potential to enhance the efficiency and promptness of video communication integration. The optimisation of video propagation may be significantly enhanced. The use of advanced video technologies and the improvement of video communication have the potential to significantly contribute to societal development by effectively disseminating information and providing guidance.

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