

The Effect of Short Video Dissemination and Optimization Strategy of Agricultural Science and Technology Journals

--Taking The Micro Letter Video Number of Agricultural Engineering Journal as an Example

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Abstract: This topic focuses on the dissemination effect and optimization strategy of short videos of agricultural science and technology journals such as Journal of Agricultural Engineering on WeChat Video. By analyzing its content, core concepts and theoretical foundations, it explores the realistic logic and current situation of improving dissemination effectiveness. The study will analyze the dissemination effectiveness based on the data (e.g., comments, likes, and favorites) of the video number, aiming to reveal the dissemination potential and challenges of agricultural science and technology journals on the short video platform. Ultimately, targeted optimization strategies will be proposed to promote the wide dissemination of agricultural science and technology information, and help agricultural high-quality development and scientific and technological innovation.

Keywords: Journal of Agricultural Science and Technology; WeChat Video Number; Effectiveness of Dissemination.

1. Introduction

2022 is an important year for agriculture. China is beginning to move towards building an agricultural powerhouse. For the first time, the report of the 20th Party Congress explicitly proposed "accelerating the construction of a strong agricultural country." "Accelerate the implementation of the innovation-driven development strategy," "In-depth implementation of the seed industry revitalization action, strengthen the support of agricultural science and technology and equipment." The majority of agricultural scientists and technologists to scale new heights to provide strong support for the high-quality development of agriculture, and agricultural science and technology journals also provide guidance for agriculture to achieve scientific and technological innovation.

Scholar Li Shuting believes that, in the context of the new era, agricultural science and technology journals lack the transformation and development thinking to adapt to the new era, the use of new media integration and development capacity is weak. These problems have seriously weakened the dissemination power of agricultural science and technology journals and restricted them from entering the track of high-quality development in the new era. In order to develop, agricultural science and technology journals need to grasp the development trend, boldly practice, integrate information technology, focus on improving editorial competitiveness, and enhance the dissemination power of journals.

But nowadays, short video has been embedded in people's life and become the main channel for people to get information. How to use short video to enhance the dissemination of agricultural science and technology journals, so that more people receive the latest agricultural scientific and technological achievements, agricultural information has yet to be studied. WeChat has a huge number of users, and its public number has attracted a lot of media, enterprises and individuals, including many IPs with huge traffic. its video

number is based on WeChat's application development capabilities, coupled with the huge number of users, people can use WeChat to browse the video number "by the way", reducing the cost of contact. At the same time, using the circle of friends to disseminate video content, not only has the ability to disseminate content, but also has a social attribute, using the audience's desire to share to achieve the purpose of dissemination. Journal of Agricultural Engineering is a national academic journal supervised by China Association of Science and Technology and sponsored by China Society of Agricultural Engineering, and it is also a selected journal of China Science and Technology Journal Excellence Achievement Program, so it is representative as a study of the dissemination effect of short videos of agricultural science and technology journals.

This topic takes the short video dissemination effect and optimization strategy of agricultural science and technology journals on WeChat video number as the main content of the research. We analyze the content published by the Journal of Agricultural Engineering on WeChat Video, and analyze the core concepts, theoretical foundations, and main contents involved in the enhancement of the dissemination effect of agricultural science and technology journals in short videos, so as to solve the problem of "what". Then, we sort out the logic of the journal's communication effect on WeChat video, highlighting the problems of "why" and "how", and analyze its communication effect. Finally, it returns to "how to do" and makes countermeasures to the problems mentioned. Taking the video content of the WeChat video number of the Journal of Agricultural Engineering as a research sample, we study the content and data presented by the Journal of Agricultural Engineering on this platform, such as the number of comments, the number of likes, and the number of favorites, etc. The study also analyzes the video content and data presented by the Journal of Agricultural Engineering on this platform.

2. Research Design

2.1. Research Methods

2.1.1. Literature Analysis Method

In this paper, we collect the research literature and information in related fields through knowing the net, library, Internet and other channels, analyze the current research dynamics and achievements in related fields, and provide theoretical basis reference for this research.

2.1.2. Content Analysis Method

Content analysis is a communication method that describes explicit content objectively, systematically, and quantitatively. The content analysis method will be applied specifically to the content that follows, measuring the content posted on the Agricultural Engineering Journal's micro-video number.

2.2. Sample Selection and Category Construction

2.2.1. Sample Selection

The Journal of Agricultural Engineering micro-video number posted its first video on the micro-video number on February 13, 2023, and a total of 42 videos were posted as of December 5, 2023, and because of the small number of videos it posted, all the videos it posted were taken as part of the study for the 42 samples.

2.2.2. Category Construction

By combing the literature on "short video content analysis", we analyzed the overall characteristics of the content published by the micro-video number of the Journal of Agricultural Engineering according to the seven dimensions of content classification, the presence or absence of opening credits, video duration, the presence or absence of subtitles, the use of multimedia materials in the video, whether or not to cite the article of the public number, and whether or not to place a jump link in the text. Analysis.

Table 1. Video encoding table

form	subcategories	encodings	instructions
Content Classification	Journal News	A1	News about the journal's activities
	Publications	A2	Content guide for each issue of the Journal
	Society Dynamics	A3	Dynamics of the Chinese Society of Agricultural Engineering
	National Science and Technology Workers' Day (PRC)	A4	Tribute to science and technology workers, send a message
	Science and Technology Service Corps Activities	A5	CSTS activities and issues
	Forum Lectures	A6	Expert Lecture Forum
	Holiday Blessings	A7	
leader (blank film at the beginning and end of a reel)	Policy documents	A8	Quick preview of centrally published documents
	There are credits.	B1	Video with credits
subtitling	uncredited	B2	The video has no credits.
	subtitled	C1	Video with subtitles
video duration	no subtitles	C2	Video without subtitles
	0-1min	D1	Length of each video
	1min-2min	D2	
	2min-3min	D3	
	3min-4min	D4	
	4min-5min	D5	
	5min-6min	D6	
	6min-7min	D7	
9min-10min	D8		
Use of multimedia materials	20min-30min	D9	
	Single video clip	E1	Video with only moving images or a single picture clip in the video
Public citation	Various video clips	E2	Includes not only motion pictures, but also pictures and stills.
	cited	F1	Its public article has quotes from the video
link (on a website)	unquoted	F2	Its public article did not cite the video
	linked	G1	Link at the end of the posted video text
	unlinked	G2	No link at the end of the posted video copy

3. Findings

3.1. Content Characterization

3.1.1. Clear Categorization and Focus

Journal of Agricultural Engineering micro letter video

number created a column navigation, the published video will be categorized into collections, respectively: journal news, publication guide, society news, the National Day of Science and Technology Workers, science and technology service mission activities, forum lectures of the six collections. This is clear and convenient for users to find the required video

content and continue browsing related content.

Among the 42 videos released, according to the author's statistics, the percentage of publication guides is the largest, reaching 43%. It can be seen that the content of its video number is still emphasized on the content of the journal itself. Publication guide to each issue of the journal published in the content of the comb summary, the dynamic images, pictures and static images combined output video content, the attraction of the user greatly increased, but also let some users who are not very understanding of the specific content of the Journal of Agricultural Engineering journal of the journal has a general understanding of the journal, is the return of the journal's own substantive content.

Next is the content of the National Science and Technology Workers' Day series, which reached 19%, and the news of the society and the news of the journal accounted for 14% and 12% respectively. The video content of the Journal of Agricultural Engineering not only includes the content of the journal itself, but also keeps up with the current events in the academic world, which is a wide range of content.

3.1.2. The Screen Adds a Variety of Elements to Fully Present the Content

Of the 42 videos posted by the Journal of Agricultural Engineering, most of them were subtitled. Except for the videos related to the forum lectures, which are too long, and the expert discussions, which are not easy to be subtitled. The rest of the videos are basically subtitled, especially the introduction of the publication is not only subtitled, but also labeled with the key contents of the video. Short video is a description of the picture, when the picture cannot convey the information that the communicator wants to disseminate, then add subtitles to supplement the facts. For example, in a video of the Science and Technology Service Corps released on March 14, although there is no narration, each scene is accompanied by text describing each activity. The first shot of this video shows a group of people discussing in front of a greenhouse base, and the subtitle explains that it is the Modern Agricultural Industry Science and Technology Service Corps inspecting the "Three Spices" planting base in Baodi District, Tianjin, and the experts explaining and guiding the scientific control of the temperature and humidity in the greenhouses. The combination of text and sound makes it easier for the audience to understand the facts.

And all the videos in its collection of publication guides have a fixed production format, and each video will have a fixed title to lead to the introduction of each issue of the journal's content. The video cover of the publication guide is also very uniform, it is the cover of each issue of the journal with the time and title, the uniform style can make the user get a better feeling and increase the good impression of the video number.

3.1.3. Using Mostly Single Video Clips.

An examination of the 42 videos it released revealed that it mostly presents video content in a single video clip. A single video clip refers to only dynamic video or static pictures, while multiple video clips refer to not only dynamic images, but also pictures and static images.

Single video material is more significant in its video number, for example, in the video of publication introduction and festival blessing, the video released on September 28th only has a static picture of "Welcome the Mid-Autumn Festival, Celebrate the National Day"; and the body content after the end of the title of the publication introduction is a screenshot with a textual explanation, and the video content

is relatively small. In the National Science and Technology Workers' Day compilation video, there are mostly single videos of experts' messages. Multiple video clips are less frequently used.

3.1.4. Use Jump Links to Enhance Interactivity.

The use of jump links refers to its release of the video text placed after the link to its related content, such as its February 13 release of the most beautiful cover selection video placed voting links, which placed links and did not place links to the video each occupies half. And the links it placed in addition to the February 14 release of the 2023 Central Document No. 1 summary of the key points of the central documents placed in the link, the rest of the video placed in the understanding of the video content related to the article released by its public number.

The link placed at the end of the video text can jump to the public number article, which can provide users with a more detailed understanding of the video content to provide convenience, but also can bring more views to the public number article, so that the public number to get more subscribers.

3.1.5. Video Length Meets Audience Needs

As shown in the figure the video length occupies the most is 0-2min accounted for 33%, followed by 4min-5min and 5min-6min, respectively, 19% and 14%. In essence, the 0-2min video is mostly about the society's news, journal's news and National Science and Technology Workers' Day. While 4min-6min is mostly the content of publication guide, each issue of the journal has more content, so the guide video is relatively long. Short videos satisfy the fragmented time of users, and the time of a few dozen seconds enables users to understand the latest news of journals. Condensing the content of a periodical into a few minutes of explanation video also provides convenience for users to search for information. The 20min-30min long video is the expert forum long meeting. Its video can meet the user's fragmented reading needs, easy to disseminate.

3.2. Analysis of Dissemination Effects

3.2.1. Indicator Construction

The communication effect is reflected in the three levels of audience's cognition, attitude and action, this paper analyzes the feedback of users on the three levels of cognition, attitude and action of Agricultural Engineering Journal to understand the communication effect of its videos among users. The WeChat platform has set up four interactive operation buttons of liking, recommending, forwarding and commenting that can be completed with one click to facilitate users to express their views on the video works. Likes represent the user's recognition and love of the video content; recommendations will recommend this video to friends, the difference between thumbs up and love likes at the bottom of the WeChat video number is whether or not it will be recommended to a friend: the comment area provides a communication channel between the user and the author of the video; reposting usually occurs when the user recognizes the video's point of view very much, is a kind of user and the video and the system of its strong resonance, so the amount of reposting is very reflective of the video work in the viewer's mind. Therefore, the amount of retweets is very reflective of the influence of the video work in the audience's mind. The four evaluations of likes, recommendations, comments and retweets can be quantitatively reflected in the bottom of the video, which is more scientific and reliable for evaluating the communication

effect of the video.

3.2.2. Overview of Short Video Dissemination in the Journal of Agricultural Engineering

Taking the videos published in WeChat Video No. during the period of 2023 of the Journal of Agricultural Engineering as the object of study, we analyzed the number of likes, recommendations, interactions, and retweets of WeChat short videos with different titles, contents, and durations around the WeChat short videos.

A total of 42 videos were posted on the micro-video number of the Journal of Agricultural Engineering in 2023. There were 18 short videos of journal introductions, accounting for 43% of the total number of all videos, followed by videos related to National Science and Technology Workers' Day, which accounted for 19%, and fewer in the areas of science and technology service corps activities, holiday wishes, and policy documents, which altogether accounted for 7% of the total number of videos.

Table 2. Short video likes, favorites, comments data table

Content of the work	number of likes (on a website)	number of forwards (e.g. on a blog)	recommended amount	comment volume
Best Cover Contest	5	3	10	0
Journal of Agricultural Engineering 2022 Volume 38 Supplement Released	2	1	3	0
Central One 2023 announced	4	6	10	0
2022 Invited report on "High-end Forum on Space Information Technology for Rural Revitalization".	1	1	0	0
Report on Global Remote Sensing Cloud Services for Agriculture	0	9	2	0
Published in the Journal of Agricultural Engineering, Volume 38, Issue 24, 2022	15	10	30	5
Welcome to pay attention and support: Join China Knowledge Network Network First Platform	11	20	33	0
Science and Technology Service Corps Agricultural Seminar in Baodi District	6	11	9	0
Results of the "Best Cover Photo Award" announced	11	12	23	3
Journal of Agricultural Engineering 2023 First Issue Publication Introduction	9	37	20	1
Second issue of the publication guide	7	28	13	2
Third issue of the Publications Guide	7	6	12	0
Publications Guide Issue 4	6	11	2	0
Publications Guide Issue 5	10	86	6	0
Seventh National Science and Technology Workers' Day	2	2	3	0
Happy Holidays to all Agricultural Engineering Scientists	1	1	0	0
National Science and Technology Workers Day Message	10	3	1	0
National Science and Technology Workers Day Message	545	261	128	5
National Science and Technology Workers Day Message	14	6	4	0
National Science and Technology Workers Day Message	27	8	27	1
National Science and Technology Workers Day Message	0	0	1	0
National Science and Technology Workers Day Message	0	0	0	0
Publications Guide Issue 6	13	7	12	0
Publications Guide Issue 7	5	3	5	0
Publications Guide Issue 8	12	11	13	0
Ninth issue of the publication guide	20	2	8	0
China Agricultural Engineering Annual Conference in Chengdu, Sichuan Province, China, August 21-24, 2023	3	11	3	2
Tenth issue of the publication guide	0	1	2	0
5 Days Countdown to the Opening Ceremony of the 2023 Annual Academic Conference of the Chinese Society of Agricultural Engineering	44	81	13	0
Countdown 4 days	74	63	23	1
Countdown 3 days	0	2	3	0
Countdown 2 days	0	1	4	0
Countdown 1 day	2	2	1	0
Publications Guide Issue 11	3	2	5	0
Publications Guide Issue 12	7	10	12	0
Happy Mid-Autumn and National Day	0	0	0	0
Publications Guide XIII	3	1	3	0
Publications Guide Issue 14	4	2	2	0
Publications Guide XV	19	12	4	0
Sixteenth issue of the publication guide	5	9	4	0
Good News: 4 Papers from Journal of Agricultural Engineering Selected as Outstanding Science and Technology Papers in the 8th CSCE	30	7	16	0
Good news: 11 experts from the Journal of Agricultural Engineering selected as highly cited scientists	5	8	3	0

According to the push mechanism of the short video platform, it can be seen that there are certain differences in the number of likes and comments of different video contents. By checking the number of likes, recommendations, retweets

and comments of short videos, we can intuitively understand the recognition, love and support of users for short video content, and this behavior is a way for new media users to give affirmation to the works of social network platforms.

Statistics on the number of likes of the short videos released by the Journal of Agricultural Engineering in 2023 show that the first one with the number of likes, recommendations, retweets and comments is a video of 6 minutes and 31 seconds in the National Science and Technology Workers' Day Collection released on May 30, in which academician Wang Maohua, honorary president of the Chinese Society of Agricultural Engineering, sends a message to wish the majority of agricultural engineering science and technology workers a happy holiday. First of all, its theme content can arouse the consensus of agricultural science and technology workers, and the video protagonist's social status is high, can attract the attention of agricultural science and technology workers, this video to get 545 likes, recommended 128, forwarded 261 times. The second is the video of the fourth and fifth days of the countdown to the opening ceremony of the 2023 Academic Annual Conference of the Chinese Society of Agricultural Engineering has received more attention, and the number of retweets and likes are relatively high. It shows that the audience of the Journal of Agricultural Engineering pays more attention to this academic conference, and the status of this academic annual conference is higher. However, in terms of the overall data of the Journal of Agricultural Engineering, its comment volume has been low and the number of likes fluctuates a lot.

Viewers often express their approval of their favorite short videos by liking them, and some of them even participate in comment interaction and forwarding. Therefore, by analyzing the number of likes can be more intuitively reflected the audience's recognition of the video content or not. WeChat video number is different from short video platforms such as Shutter, Shake and other short video platforms in that it has a recommended likes, which will be pushed to WeChat friends after the likes, showing that the friends have recently watched. Statistics of the 42 videos of the micro-letter video number of Agricultural Engineering Journal, whose average number of likes is 22.5 and the total number of likes is 942, and the average number of recommendations is 11 and the total number of recommendations is 473. These videos with the highest number of likes and recommendations are all videos of National Science and Technology Workers Day Wang Maohua Academician's message, which resonates with the majority of agricultural science and technology workers. However, there are also videos with 0 likes in its video number, such as the two days after the countdown to the opening ceremony of the 2023 Academic Annual Conference of the Chinese Society of Agricultural Engineering, and the video of Happy National Day and Mid-Autumn Festival, etc. The number of likes of these videos is 0. This fully indicates that there is a discrepancy between good and bad in the works of the micro-letter video number of the Journal of Agricultural Engineering.

Commenting and sharing can be important means of expressing user interaction with the video content, with commenting demonstrating the user's willingness to interact with the video, and re-sharing usually representing a strong agreement with the user's viewpoint of the video. Through the statistics of the 42 videos studied, it was found that the number of their video comments was 0 in the majority. This directly reflects that the users' willingness to interact with the micro-video number of the Journal of Agricultural Engineering is very low and the interaction effect is very poor, which is very unfavorable to enhance user stickiness and needs to be improved. Statistical analysis of forwarding found

that its videos were forwarded 757 times, an average of 18 times per video was forwarded, of which the highest amount of forwarding and comments is still the National Science and Technology Workers' Day Wang Maohua academician's message video.

4. Existing Problems and Strategies for Improving

4.1. Problems

The video dissemination of scientific and technical journals usually needs to simplify and summarize the complex scientific research content, and also needs to consider the audience's attention and patience, but the short duration of the video may not be able to completely show the whole process and results of scientific research. Therefore, the dissemination of scientific and technical journals on short videos is still facing great challenges. From the viewpoint of the five elements of the dissemination process, the agricultural science and technology journals are facing the following problems, taking the micro letter video number of the Journal of Agricultural Engineering as an example:

4.1.1. Narrow Range of Target Audience, Affecting the Scope of Video Dissemination

Taking the micro letter video number of Journal of Agricultural Engineering as an example, its target audience is mainly professionals engaged in agriculture and related people, and from the specific content of its video and the comment area, more or more of the journal's audience is the target audience of the video number, which is not conducive to expanding the dissemination effect of the journal. Agricultural scientific and technological achievements are still disseminated within the scope of a small number of professionals, and the narrow target range is not conducive to the practical forwarding of agricultural scientific and technological achievements, which is not conducive to expanding the scope of its influence, and is also not conducive to the enhancement of the influence of the journal. Therefore, an important problem faced by agricultural science and technology journals is that they have not changed the thinking of users, have not adapted to the transformation of the audience under the new media, and have not grasped the opportunities brought by the new media era to expand the influence of journals.

4.1.2. Monotonous Form of Content and Lack of Interest

Users in the new media environment have more rights to choose, massive information is presented to the user at the same time the user has more channels to choose, the lack of attractive video in the massive information has no competitiveness in the new media era, the entire network communication environment presents a fragmented state, fragmented time prevails, so short and fast video is more in line with the user's fragmented reading habits. From the content of the video number of the Journal of Agricultural Engineering, there are many videos with long duration, in which the two expert report videos of the forum lectures are directly intercepted from the report clips of up to half an hour, which are too long, not easy to be accepted by the users, and are easy to be browsed quickly, and can not get a better finish rate. And there are too many similar video contents in its video number, the countdown to the 2023 Academic Annual Conference of the Chinese Society of Agricultural Engineering are sent five videos, the user's interest may

gradually weaken, and the interest in the repetitive content diminishes, so its data is getting worse and worse in these five countdown videos. Nowadays is the attention economy, no highlights, lack of interesting video, no video at the beginning of the video to catch the user's eye is difficult to retain the user, over time, will not be able to get more traffic, not easy to be recommended.

4.1.3. Lack of Interaction with the Audience

As a kind of content-based social platform, video number not only enables users to watch all kinds of interesting, useful and precious videos, but also enables users to interact with videos and video creators. User interaction, as the core function of the video, can make the video spread faster, increase the exposure of the video, enhance the credibility and influence of the video, and then make the video popular all over the world. Generally speaking, establishing interaction with users is the most effective and fastest way to enhance user stickiness. In the video number of Agricultural Engineering Journal, we can see that most of the videos have zero comments, and the highest number of comments is only 5, which shows that its video number lacks interaction with users. Its video text does not have interactive guiding words to cause users to discuss, and it has not replied to users' comments in the comment section, which is not easy to retain fans.

4.2. Effectiveness Enhancement Strategies

In order to enhance the dissemination effect of short videos in agricultural science and technology journals, it is necessary to implement a series of targeted strategies. These strategies are aimed at attracting potential target audiences, increasing the number of viewings, improving the viewing rate, and expanding the scope of dissemination so that agricultural science and technology knowledge can be more widely used and disseminated.

4.2.1. Well-produced Content

Produce short videos that are high quality, interesting and educational. Ensure that the video content is related to the field of agricultural science and technology and can meet the needs of the audience and stimulate interest. In fact, the video content of agricultural science and technology journals can not only be limited to the content of the journal itself, you can make some agricultural practice video, closely related to agricultural life, to ensure that the short video content is targeted and attractive, highlighting the practical application of agricultural science and technology research and innovation, can expand the scope of dissemination, improve the viewing rate. And take the video number of Agricultural Engineering Journal as an example, some too long video data is very poor, users do not have the patience to watch the complete video, which is not conducive to the account of the traffic push. Keep the video length short and highlight the key points to meet the audience's need to get information in a short time. And the narrator should adopt vivid and interesting explanations, use vivid and interesting language and images to explain the concepts of agricultural science and technology, avoid too much jargon, and try to explain in an easy-to-understand way so that more people can understand and pay attention to it. The content selection should focus on the current hot issues in the field of agricultural science and technology, and choose the topics that can attract wide attention to improve audience participation. And from the total number of videos in the video number of the Journal of Agricultural Engineering, from the beginning of the release

of videos in February 2023 to December 5, only 42 videos were released, and the most updated videos were released in the month of February. To get the support of traffic need to keep the video content fresh and post regular updates to attract viewers to keep following.

4.2.2. Conducting Interactions

Users can interact with videos on Video Number by liking, commenting, and sharing. When a video gets a lot of likes, comments, and shares from users, the Video Number recommends it to a wider audience, which gives the video a huge boost in exposure. User interaction pushes the video to a wider audience and makes the video easier to popularize.

Choose topics that are highly interactive. Set up some interactive elements in the video, such as polls, answers, etc., to guide viewers to actively participate, which helps to increase the viewing time and user engagement. Appropriately add an interactive sentence in the short video to stimulate the user's desire to interact. Users all expect to gain attention in short videos, and creators need to perceive the presence of the audience and pay full attention to it. When the short video receives user comments, creators should actively interact and respond in time to build a good reputation, which in turn prompts users to forward and expand the scope of dissemination to absorb more audiences. And also need to interact with the audience in the comment section, encourage the audience to leave comments, questions, build interactivity, increase the exposure of the video on social media. WeChat video number can also be associated with the public number, using the public number to the video number to directly channel fans, traffic, likes.

4.2.3. Expanding Cooperation Channels and Resources

The scope of dissemination can be expanded through cooperation. In this process, professional institutions, scholars and agricultural enterprises in the field of agriculture work together to promote high-quality videos, with the aim of creating an all-round, multi-level communication network to popularize cutting-edge agricultural knowledge and technology to a wide range of audience groups. This mode of cooperation has significant advantages, which not only helps to enhance the dissemination of the video, expand social influence, but also broaden the scope of the target audience, injecting a steady stream of vitality for the innovative development of China's agricultural sector. Specifically, by working closely with all parties to co-produce a number of video resources with rich content and practical guidance, and applying these videos to education and training, technology promotion and other fields, agricultural practitioners will receive powerful technical support and information services. For example, the partners can jointly select representative agricultural cases and show them to the audience through video form, so that the audience can more intuitively understand the application and effect of agricultural technology. Expanding the scope of dissemination through cooperation is an important way to enhance influence and promote innovation in the agricultural sector. On the basis of giving full play to the advantages of all parties and working closely together, we can jointly create video resources rich in substance and practical guidance, and pass high-quality agricultural knowledge and technology to more people, which is expected to inject new vitality into the innovative development of China's agricultural field.

5. Conclusion

In the current short video dissemination process of agricultural science and technology journals, a series of problems are becoming more and more prominent, such as insufficient interactivity, monotonous and boring content and low update frequency, etc., which adversely affect the practical transformation of agricultural scientific and technological achievements. In this regard, this paper proposes targeted optimization strategies from the aspects of content innovation and interactivity enhancement in order to improve the dissemination effect of agricultural science and technology journals. It is worth noting that this study takes the micro letter video number of Journal of Agricultural Engineering as the research sample, and due to the relatively small number of videos it releases, the regularity summary of the dissemination effect of short videos of agricultural science and technology journals is not yet comprehensive enough. In order to explore this issue more precisely, future research should expand the sample scope and analyze more agricultural science and technology journals in depth, with a view to providing more comprehensive and scientific guidance for enhancing the communication effect of short videos in agricultural science and technology journals. On this basis, we should also pay attention to the innovative development of short video communication in agricultural science and technology journals. For example, the use of big data, artificial intelligence and other technical means to realize the personalized recommendation of short video content, thus improving user stickiness; strengthen the online interaction with agricultural scientists and promote the dissemination of agricultural scientific and technological achievements and exchanges; combined with the actual case, the introduction of a more interesting and targeted short video content to enhance the audience's viewing experience. In short, the enhancement of short video communication effect of agricultural science and technology journals needs to start from many aspects, and in the future research, we will continue to explore this field in depth, so as to provide more effective strategies for short video communication of agricultural science and technology journals.

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