

A Paradigm of China's Space News Releasing from “Delivering Achievement” to “Sharing Knowledge” and “Developing Empathy” under Popular Science Background: A Case Study on the Video Series of the Great Power's Spacecrafts

Cheng Yang*

Media Integration and Communication Center of China Aerospace Science and Technology Corporation, Beijing 100048, China

**Author to whom correspondence should be addressed.*

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: News reports about China's aerospace industry have been focusing on achievements, which gives rise to problems of “cognitive barriers” and “value disconnecting.” These problems may influence the dissemination effects not only of popular science on the quality development of talents, but also the deep connection and shared feelings between the nation and the public. Taking the China Space News on “the Great Power's Spacecrafts,” video series of popular science as a case study, this paper tries to give a new paradigm of China space news, by examining how it shares knowledge to public, how it gives lectures on popular science, how it establishes connections between aerospace technology and the public through “developing empathy,” and how it makes audience be part of lecture.

Keywords: Achievement propaganda; Sharing knowledge; Developing empathy; Communication paradigms

Online publication: September 26, 2025

1. The dilemma of China's space news and call for a new paradigm

China has been reaching plenty of milestones in space during the past 5 years, which is considered a period of rapid development. The construction of Tiangong space station, the landing of a probe Chang'e-6 to the far side of the moon, and the Tianwen-1 China's first Mars exploration program, these significant achievements are indicating the self-reliance and self-strengthening in science and technology of China. It is of great significance to the nation. However, the “Significance” is not fully accepted before building a tight connection with the public. News reports about China's aerospace industry have been focusing on achievements, which gives rise to problems of “cognitive barriers” and “value disconnecting”. These problems may influence the dissemination effects not only of popular science on the quality development of talents, but also the deep connection and shared feelings between the nation and the public.

This disseminating predicament manifests primarily in two aspects. Firstly, the “barrier of comprehension”. Space science and technology are highly specialized and systematic, which employs extensive technical terminology at different

mission stages, such as “relay communication”, “retrograde orbit”, and “satellite platform,” and so on, and creates a “knowledge blind spot” that is so difficult for the public. It may tend to confuse the public. And the puzzlement results in “terminology bombardment”, alienating non-specialist audiences^[1]. Secondly, there is a “value disconnection.” Delivering impressive achievements needs to be the priority, according to traditional communication models, through grand narratives, which would be a challenge to build meaningful connections between space science and technology and the public. These achievements of space exploration have been categorized as separate from the public, and the public feels unconcerned and will not try to develop deep emotional resonance or value alignment^[2]. Consequently, the feelings of the public wax and wane rapidly over time, and especially when news cycles move on.

This predicament stems from the traditional “achievement propaganda” paradigm becoming ill-suited to contemporary media ecosystems and evolving public demands. This communicator-centric approach, emphasizing unilateral information dissemination and authority-building, served its purpose in specific historical contexts. However, the dissemination effects are waxing and waning in the new time’s era, during which information overloads and audience awareness of public matters. therefore, an urgency changing of the news report of China’s space achievements would be needed, from “propaganda” to “communication,” turning the one-way output of proclaiming that “we’re great” to two-way communication of addressing “why we’ve done so many efforts and how they are closely bound up with you”, between the report and the public.

Considering this disseminated predicament background, China Space News endeavored to solve the dilemma, taking 2 years to produce a video series on popular science of “The Great Power’s Spacecrafts.” These video series are closely bound up with China’s annual great space missions. And on the basis of authoritative, accurate, and engaging videos, the aforementioned challenges were redefined as opportunities. It achieved a new paradigm of China’s space news, by which it shares knowledge with the public, gives lectures on popular science, establishes connections between aerospace technology and the public through “developing empathy,” and makes the audience part of the lecture. And it would be a reference model for this kind of dissemination.

2. Sharing knowledge needs to be the key to breaking down the cognitive barriers

Role perception of popular science means “Sharing Knowledge,” which signifies a transformation in the dissemination pattern of interpreting terminology into normal terms instead of spreading precise terminology, with its main task of making the effective translation of specialized information into public information. When digging into the content of the videos, the script for the screen was written in everyday spoken language, which is comprehensible and acceptable to the public. Putting videos on screen is considered a proper medium to deliver knowledge to the public, which enhances the ability of expression.

For all these reasons, many of which are bound up with a method undoubtedly good, the sharing of knowledge has become difficult, and if it is not to be a barrier to popular science, it must be conceived in a somewhat new way of popularization, which is commonly believed as the linguistic path to the public. Confronted with large quantities of aerospace terminology, the video series of popular science extensively employs rhetorical techniques such as metaphor, analogy, and personification to facilitate cross-contextual symbol conversion. It succeeded in turning the expert language into everyday spoken language, especially the abstract concepts into concrete expressions, and professional cognition into public understanding, rendering the content comprehensible, acceptable, and developing a passion for common audiences.

It would be possible to adduce examples forever, but some would suffice. For instance, the main task of the Queqiao-2 probe, which is a relay satellite, is described as “making phone calls to the moon”; when describing the difference between surface collecting and drilling during Chang’e-6’s lunar far side sampling, “working with closed eyes”; and the fault detecting system of Long March 7 rocket is introduced with phrases of “smart enough to fly itself,” “holding on even when it’s sick.” Turning the unfamiliar aerospace technology into everyday spoken language, these expressions draw upon familiar everyday experiences, significantly helping common audiences step across the cognition threshold. This kind of

“translation” breaks down barriers between experts and common audiences, establishing a dialogue grounded in shared experience and language, rendering obscure technical concepts tangible and comprehensible.

Scholars opine that it is sometimes easier to illustrate an abstract concept by analogy with something concrete. Since internet data indicates that young people are impressionable, videos imply the efficiency of explaining quite complex, abstract ideas in a nice, simple way. In recent years, with the rapid development of new media technologies, video has become a pivotal medium for popular science spreading. Integrating multiple symbolic systems, including imagery, sound, text, and animation, it constructs an “information field” of virtual reality. Compared to simply an image or text, video delivers richer, more definitive, and compelling information. This distinctive feature offers substantial advantages for disseminating popular science on space science and technology^[2].

Modern visual techniques were used to remove the noise, enhance image mean grads and improve visual effect, by “The Great Power’s Spacecrafts” producing team, and especially live-action filming, 3D animation, and data visualization, which makes the abstract concepts acceptable. When the episode on the ChinaSat satellite demonstrates the entire process that television programs are received via satellite, using by animated video. The video of “cosmic chariot”, the ShenZhou spacecraft, illustrates the functional zones of each compartment. And the Long March 12 rocket, which is the Long March family’s newborn member, highlights two distinctive visual characteristics. These visual communication techniques directly engage with the human visual nervous system, delivering a strong impact on the reading habits that align with contemporary society’s “visual turn.” They have changed the way of sharing knowledge, from simple textual expression to videos, achieving the considered effect of “a piece of video clip paints a thousand words.”

3. “Developing Empathy” builds connections and consensus on common sense

The fundamental of “developing empathy” goes to the way of delivering the achievements^[3]. Connections and consensus on the nation’s achievements must be built through the adjustments of narration and connection. This kind of transformation needs to be bound up with the connection of grand symbols of national glory and emotionally resonant events, intertwined with individual experiences.

3.1. Redefining narrative mode, a good balance of newsworthiness and popular science is required

The video series “The Great Power’s Spacecrafts” focuses on key space missions of China. It is the interview resource leverage of China Space News that helps to organize the production. With professional insights from mission personnel, China Space News provides the public with first-hand material and irreplaceable news value, while it transcends conventional news dissemination by prioritizing rigorous scientific literacy. With factual accuracy, the content of the video required a certificate for release by the institutions of the China Association for Science and Technology and the Chinese Society of Astronautics^[4].

Releasing the video synchronizes with the action of space missions, to which the communication law applies. This timing is the factor, which the release not only meet the curiosity of the public on space events but also share the momentum of space news with more people. For instance, releasing a video with missions of the launch of China’s first Ocean Salinity Detection Satellite, the maiden flight of the Long March 12, China’s inaugural asteroid sample return mission, and the Tianwen-2 main-belt comet exploration mission, harnessed big attention for the news events, drawing the public interest from mere outcome-focused coverage to the scientific, engineering, and social values of the missions. The method extended the news cycle’s lifespan, achieving a transition from mere information dissemination to substantive science popularization.

With this new mode, the releasing of key space missions is considered as a “fuse” that ignites the enthusiasm of the public to the events and to the popular science on the technology. When it comes to news releasing, it requires a good balance of newsworthiness and popular science, making it not only a great story of the development of the Country but also a great story of the events and the technology^[5].

3.2. Redefining the connecting point, makes it not just a thing to people, but the technology of space affecting everyday life

The video series of “The Great Power’s Spacecrafts” directed the public’s attention from spacecrafts to the details of the men and women behind them. The arrangement of interviews covered the main engineers, which shows humanity, compassion, and consideration for the engineers, capturing the scenery of how the chief engineer structured the whole plan, how the engineers designed the spacecrafts, how they worked on the new technology, and how they controlled the whole mission, how they spent the leisure time and how they love their family. It is humanity that makes the story attractive, in which the public shows their concern not merely for the technology itself, but the underlying spirit of scientific dedication and professional integrity. By developing such values, we connect people with resonating emotion, with the everyday life of a common person striving for a happy life, and along with what the country does for common people.

There are synchronous effects that the video series of popular science emphasizes the understanding of tangible benefits of space technology. For instance, the Ocean Salinity Detection Satellite of China serves for marine life, such as oceanic resources development, disaster prevention, and climate change research, while the ChinaSat satellite facilitates broadcasting transmission, government and industrial communications, and emergency services. With this framing, space technology is not an abstract concept to the public anymore, but concrete words of a powerful engine that improves society and enhances public welfare. This narrative method intertwines the “grand narrative” of national achievements with the “micro-narratives” of individual happiness, forging a shared sense of community where the destiny of the nation and its citizens are closely connected.

4. Conclusion: Creating new paradigms for delivering achievements in the future requires practice

As it comes to the kind of delivering achievements, the main task goes to the explanation of what it is instead of disseminating what happened, which is no longer merely to inform the public but also to elucidate the rationale behind the events. This demands that the communicators need to be both an editor and a journalist, with a sense and the ability to transform hard-hitting achievements into common knowledge, emotions, and values^[6]. The practice of the video series of “the Great Power’s Spacecrafts” by China Space News necessarily indicates that the key to improving the delivery of achievements would not be the way of spreading, but the way of narrating.

The paradigm of narrative transformation is composed of three main factors in delivering achievements. First, changing from “informing” to “dialogue.” Communicators focus not merely content themselves of informing the public about “what we have achieved,” but also strive to foster understanding through knowledge sharing and explain “how these efforts were made” and “the scientific principles behind them.” This helps to improve the scientific literacy and rational thinking of the public, turning the recipients of information into possessors of knowledge. Second, changing from “milestones” to “weaving networks”. News delivering focusing on commemorative monuments will not suffice, and a web of connections is to be woven, a web of meaning intrinsically linked to societal development and individual lives. This ensures that every delivery of the achievement finds itself a connection with the public’s infectious expression of emotion. Lastly, changing from a trending topic to knowledge accumulation. This may ensure national achievements transcend temporary trending topics to the motivation of fostering scientific ability and cultural confidence, with serving the delivering of news events as a catalyst for change, helping the public to get support on the knowledge base building within relevant fields.

The public demands authoritative information in a time that has been in the phase of fragmentation, emotion, and visual orientation, and demands more than “accessibility” and “resonance.” Consequently, the “sharing knowledge + developing empathy” dissemination paradigm applies on occasions. The method of news release applies in all kinds of industrial movements, such as deep-sea exploration, nuclear energy utilization, artificial intelligence, etc., enhancing public understanding and may be a support for technological development. Simultaneously, the concrete methodologies

center around the public under the background of systemic transformation by the mainstream media in China, which core principle lies in respecting the public of their cognition capacities, meeting their emotional needs, by focusing on the concerning of humanity.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Zhu H, Ji C, 2015, Diffusion, Participation and Production: The Evolution of Science Communication Paradigms—A Case Study of Guokr. *Media*, 2015(23): 70–73.
- [2] Xue W, Zhang S, 2023, Reflections on Science Communication Through Short Videos by the Association for Science and Technology. *Science and Technology Innovation and Productivity*, 44(08): 24–27.
- [3] Liu Y, 2024, Empathetic Communication in the Digital Age: Concepts, Functions, Influencing Factors, and Mechanisms of Occurrence. *Journal of Southwest University for Nationalities (Humanities and Social Sciences Edition)*, 45(06): 167–178.
- [4] Huo J, 2025, Content Construction, Field Selection and Value Orientation of Science Popularization Short Video News. *China Radio, Film and Television*, 2025(05): 93–95.
- [5] Ren Y, 2025, An Exploration of Integration Models Between Science Popularization Short Videos and News Communication. *Journalism and Communication*, 2025(16): 92–94.
- [6] Zhao H, 2025, Innovative Approaches to Science Communication by Mainstream Media in the Converged Media Era. *Omni-Media Exploration*, 2025(01): 45–47.

Publisher's note

Whioce Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.