

Virtual Construct Reality: Research on Communication Mechanism and Practical Dilemma of Virtual Reality News

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Abstract: The development of technology that affects news and brings about every change in the media always affects the way the audience perceives news. The organic integration of virtual reality technology and news not only realizes the real simulation of event occurrence by cutting-edge technology, but also the innovation of scene news narrative changes the way of time and space reproduction. The aesthetics and immersion communication which are more omnipotent and “present experience” reflect that virtual reality news has a unique communication mechanism. Virtual reality is redefining the way news is produced in the press, but while providing resources for its narrative, there are still some limitations. This paper takes the unique communication mechanism of virtual reality news as the starting point, examines the practical dilemma and ethical limitations of its communication structure and further proposes the future prospect of virtual reality news.

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The "immersion age" under the media integration drives the development of media and the integration of multimedia technology. Virtual reality has brought about breakthrough changes and new media experiences in the ability and structure of news communication, which has changed the audience's recognition of the existing ways of obtaining traditional news. McLuhan's pioneering thesis of "Media is Information"^[1] verifies the inevitable relationship between the news with narrative and communication mechanism as the core of its business and its use of the media from the macro point of view of communication science. Every update and change of the media will inevitably bring about restructuring and adjustment of the communication structure of journalism. At the same time, it also faces infinite attempts and challenges. The virtual technology in the era of "Internet +" has become the core force for the news revolution, and the virtual reality news allows the audience to be in the "ubiquitous" network that is omnipotent and omniscient. By means of "virtual" construction of "reality", the "parallel turn" and "linkage" goals of the overall structure of news, communication mechanism and practice have been achieved.

Compared with traditional news, virtual reality news is a transformation from "window" to "door". Traditional news is to let the audience see the occurrence of news events through a window, and

there is an obvious sense of distance. Virtual reality news breaks this barrier and allows the audience to enter the news world from the perspective of "first person" and participate in it. Virtual reality news does not exist as a substitute for other forms of news, but on the basis of it, it leads the audience to further know the truth of news in a more realistic way. Reproductive and experiential news production deepens the visual presentation, virtual space-time replaces media space-time, thus eliminating the sense of distance between the audience and the news.

1. Virtual Construct Reality: Research on the Communication Mechanism of Virtual Reality News

1.1 News Narration: The Space-time Transformation from Absence to Telepresence

Virtual reality news uses human-computer interaction technology to break through the inherent limitations in the relationship between the audience and the media. Its key value lies in utilizing the narrative structure and ability of news in many aspects and integrating reasonable consciousness imagination to create objective, real and immersive experience of information acquisition and feedback between the news scene and the audience. For a long time, in the process of accepting traditional news narrative, audiences are passively "far-viewed" with the role of silent "bystander". They are "externalized" outside the

news through the paper media or the screen, and in a relatively isolated "absent" state.^[2] The production of virtual reality news invisibly breaks the barrier of traditional news narrative. Its information allows the audience to "de-bodily" and temporarily disengage from the objective world into an independent subject. It can be transformed into an intrinsic "participant" and can freely change the perspective of viewing in the "de-localized" virtual world. This digital virtual field replaces the fragmentary reality of traditional news with the completeness and unity of time and space reality, and achieves an absent presence or "telepresence" state.

Virtual reality news has the excellent ability to "reproduce" realistic scenes which traditional news does not have, and two unparalleled narrative features and advantages of "remote presence" and "deep immersion". Its rich details easily lead the audience across the boundaries of time and space in order to "connect and coexist" of mind and body in the reality exists of telepresence. In the process of experience, even if the audience knows that this kind of "on-the-spot" feeling is illusory which is realized through technology, they can also actively immerse themselves in the news events, thus generating "true reaction"^[3] and obtaining deep perception and feedback from the virtual scene. Virtual reality news brings perceptible immersion narrative to the audience, which realizes the cross-space-time transformation from "absence" to "telepresence", and this effect is also beyond the reach of other news media.

1.2 Aesthetic Presentation: Visual Representation of Art and Conception

Li Liangrong once mentioned in the "Introduction to Journalism" that news has two core and basic elements, namely, truth and freshness.^[4] "Truth" is a necessary attribute of every form of news, and "freshness" here not only represents the timeliness of the news content, but also can rise to the fresh feeling that the form of presentation often brings to the audience. Virtual reality news adopts the way of many kinds of media amalgamation, media technology combines with virtual art to present the dialectical relationship between the audience's body and media, space and reality. It integrates reasonable imaginations and has multiple visual representations in the context of virtual aesthetics. In such an era of reading the Internet of Everything, virtual reality news transforms dull news into vivid one and transforms the invariable presentation into stereoscopic one by means of "beauty of reorganization", "beauty of art" and "beauty of conception". It subverts the traditional communication mode and visual effects.

The integration of virtual aesthetics makes virtual reality news become a kind of "embodied" media. The

situation and field created by virtual aesthetics are changed from one-way to parallel in the virtual world, which extends the audience's senses and strengthens the immersive experience at the same time. It urges the audience to temporarily play the role in the news and produce a unique "immersion freedom" and "aesthetic freedom".^[5] Under the support of the integrated media, virtual reality news deconstructs reality on the basis of ensuring the objective reality and relies on conception to create a symbolic reality, that is, the mimetic environment. It fully mobilizes the audience's audiovisual perception, and lets them completely immersed in the situation of existence.

1.3 Immersion Communication: Real and Immersive Scene Experience

The dissemination of virtual reality news is attributed to the immersive dissemination of news information. Its significance lies in starting from the background and deep meaning of news, visualizing and scene the news facts through technology, presenting the complex motivations and social relations behind the news to the audience in a real simulation way. The existence of virtual reality news is neither one-sided elaboration of facts, nor a "point" or "line" to reproduce facts. Instead, it lets the audience to explore the truth independently from a first-person perspective, so as to "non-linear" exhibit the objective reality. The media presents the richer perceptible details, the audience can experience the stronger immersive feeling in the process of acceptance,^[6] while virtual reality news has the same effect. It can refine the content of the report and put the audience in three-dimensional space to roam freely, so as to awaken the experience's ability and feeling of "empathy".

The reconstruction and analysis of news by virtual reality makes its focus change from grand narrative structure to micro immersion communication,^[7] the situational experience extends the audience's cognitive space infinitely, at the same time, it also strengthens the audience's understanding and memory of the truth of the news. The real simulation and reproduction of real scene by virtual reality news breaks through the limitations of external media such as time, space, language and image, and includes news details as much as possible in the presentation and interaction mode of "reality + immersion + participation". This kind of the immersion news under the "mimetic environment" not only improves the expression of news information, but also satisfies the needs and desires of the audience to have a deep understanding of the news.

2. Practical Dilemmas and Ethical Limitations of Virtual Reality News

2.1 News production: Limitation of Timeliness and Subject Matter

Relying on media technology, virtual reality news changes the presentation of traditional cognitive news, and has the potential to reshape the news production and narrative paradigm.^[8] At present, the application of virtual reality technology in the field of news has become more and more popular, and most of the industry regards virtual reality news as a media means that can bring "revolutionary changes to the press". However, in terms of its production timeliness, it is still unable to achieve a "quick response". Whether it's virtual reality panoramic news or virtual reality scene news, it takes a long time to shoot or set up the scenes. For example, "Harvest of Change" took about three months, while "Mountain Village Kindergarten" also took more than one month. It can be seen that the production cycle is so long, and such a speed has not really met the requirements of news timeliness.

In addition, there is a lack of subjects that can be used in the production of virtual reality news at present, which can not cover all types of news. For example, panoramic news is mostly used for real-time reporting, while scene news is more suitable for reporting catastrophic news or social hot issues. Under the condition of technological determinism, the production cycle and cost also affect the choice and operation of news topics to a certain extent.^[9] Therefore, although virtual technology can make news content present in a better immersion way, it will also bring practical dilemmas in terms of timeliness and topic selection in news production.

2.2 News Narration: Balance and Dilemma of Immersion Effect

In the news narrative, virtual reality news fully takes into account the needs of the audience and reconstructs its state of reading the news from multiple perspectives. It focuses on the truth and allows the audience to be in the virtual space and immerse themselves in news events. The parallel narrative structure of virtual reality news can give full play to the visual effect and make the audience visualized and sensible. It seems that the line of sight is bound by narrow glasses, but in fact, the audience's field of vision becomes wider. It not only eliminates the external interference, but also brings the audience the feeling of being present at the same time. Virtual technology visualizes the details of the news in the form of three-dimensional simulations, the stronger immersive experience it brings, the greater the degree of sensation that evokes the audience's inner feelings.^[10] But it is precisely because of this, we can not

predict the extent of the audience's emotional extension and understanding of the news in advance, so we can not effectively avoid this immersion feeling may bring the audience in the cognitive and behavioral aspects. Virtual reality news, the original intention of "presence" immersive news narrative is to let the audience experience the news better, but it does not mean that virtual technology can surpass the news content to occupy the main position or excessively present the immersive narrative. Therefore, how to maintain the reasonable and balance of its immersive effect is still a problem worthy of consideration.

2.3 News Experience: Ethical Risk of Sensory Stimulation

The application of virtual reality in the journalism industry has changed the way of interaction and communication between communicators and receivers, and has brought more realistic effects to audiences by presenting graphics, images, voices and other forms of discourse in virtual space, thus bringing them a more realistic scene experience. Compared with the traditional news recorded by words or lenses, virtual reality news can indeed give the audience a very strong sensory impact, and virtual technology can also make the audience deeply immersed in the news narrative through the amplification of sound or visual effects.^[11] So when accepting the narrative media, the audience will get a unique experience in terms of emotion and perception. However, the above research also mentioned that the subject matter of virtual reality news has been limited to a certain extent, especially the virtual reality scene news is mostly used to report the contents of disaster types. And the sensory stimulation caused by the images with more disaster, war and other information will be more intense under the enlargement of virtual reality equipment. The psychological endurance of the audience is relatively limited, and it is obviously not appropriate to accept these contents without any precautions. Therefore, news reports sometimes inevitably present some details of violence and war, and the ethical problems in this regard, as well as how to avoid the risk of sensory stimulation caused by news experience in virtual reality environment, are all urgent issues to be solved.

3. Prospects for the Future of Virtual Reality News

In the future, virtual reality news can be developed and extended in two directions. One is to improve the news structure and attract the audience by means of detailed and organized news content with text, video and other traditional ways in order to let the audience experience the depth and breadth of the coexistence and more complete news; Second is to give full play to the advantages of the media and

construct a new model with diversified and interactive functional expressions so as to achieve borderless dissemination of information and comprehensively enhance the public trust and social value of the media.

Although virtual reality news is disseminated in the form of digital presentation and information flow narrative, it does not mean that it does not need more organized classification and processing. In the Internet era, people's reading methods are fragmented, and targeted and personalized classified news will be welcomed by the audience for a long time. Traditional text news cannot avoid the influx of massive news due to the limitations of paper media, while virtual reality news relies on big data and artificial intelligence, which can specify the classification in the news production so as to achieve the personalized effect. At present, the virtual reality news is mostly panoramic live news coverage. There are still some limitations in the realization of news transmission only by relying on media technology. Only by integrating pictures, texts and other old media and jointly constructing news content can ensure the deep narrative of virtual reality news.

In the process of interacting with news, the audience often forms their own measurement and recognition of the social value of news, while the information environment created by virtual reality news avoids the problem of news content deviation caused by the mixing of journalists' subjective consciousness as far as possible, so that audiences can understand news information more clearly. The era of intellectual media will be more pluralistic in the future. Virtual reality news should use media technology and give full play to the advantages of the media. It will

increase the interaction elements with the audience without affecting the authenticity of the news, and balance the degree of the audience's rational thinking and emotional driving in the process of immersive experience. Virtual reality news should enhance the audience's recognition of news from various angles and aspects in order to promote the influence and value of news in society.

4. Conclusion

Virtual reality news has unlimited potential and possibilities in the future because of its remarkable and unique communication mechanism in news narrative, aesthetic presentation and immersive communication, but in the process of its communication, it is still necessary to return to the motif of news, that is, the news content should occupy the dominant position. The role of virtual reality technology in the press brings innovation to the presentation and dissemination of news, but there are also some practical difficulties and ethical risks. Therefore, virtual reality news in the future still needs to adhere to the news standards and production principles, and it is a long-term way to give full play to the advantages of its own attributes.

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