

The Roles and Functions of Computational Propaganda in the International Struggle for Discursive Power: The Case of Russia in the Russia-Ukraine Conflict

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Abstract. The fight for discursive power is an important strategic goal in today's international competition. In the process of discursive power struggle, computational propaganda has been widely used as an emerging covert means of discursive power struggle. This paper starts from the perspective of discursive power struggle, and selects a representative typical case of Russia in the Russia-Ukraine conflict to study computational propaganda in the struggle for discursive power. This paper summarizes the conceptual mechanism of computational propaganda and its relationship with the struggle for discursive power in the light of the theory of discursive power, and focuses on the analysis of Russia's computational propaganda practice in the Russia-Ukraine conflict and the risks and dilemmas it faces.

Keywords: Computational propaganda, discursive power struggle, Russia, Russia-Ukraine conflict.

1. Introduction

Discursive power has always been a key area of concern in international relations and a center of strategic competition for many countries [1]. In modern war, information war, network war and public opinion war are its important components, and the struggle for discursive power is also one of the important strategic goals. The means of international discursive power struggle includes open and hidden means, and the existing research has paid sufficient attention to and studied the open means of discursive power struggle for a long time, while the research on hidden means is insufficient in comparison. Along with the development of the digital era, the influence of covert means of discursive power struggle is gradually revealed in practice, and its form is still in the process of rapid updating, so it is necessary to carry out more in-depth and innovative research on covert means of discursive power struggle to deepen the understanding of this emerging field.

Computational propaganda is an emerging covert means of discursive power struggle. In the era of digital economy and society, computational propaganda has been widely used globally as an emerging form of propaganda. In Western societies, as computational propaganda and "post-truth" politics borrow from each other, the emotional beliefs of individuals or groups overtake objective facts as the main driving force in shaping public opinion [2]. In the era of the rise of computational propaganda, the mode of persuasion based on rational judgment has encountered unprecedented impacts, and the forms of international competition as well as modern warfare have become more and more complex. For this reason, major Western countries have begun to discuss computational propaganda extensively.

However, compared with the Western academic circles, the attention and discussion on this topic in the Chinese domestic academic circles are obviously insufficient, only a very small number of scholars can follow and study the development trend of computational propaganda for a long time and the theoretical nature of it is lacking, and there is an even greater lack of research on putting computational propaganda in the theoretical field of discursive power competition and so on. Russia is one of the earliest countries to develop computational propaganda, and in the Russia-Ukraine conflict, computational propaganda has become an important strategic tool for Russia, playing a key role. Therefore, this paper selects Russia's computational propaganda in the Russia-Ukraine conflict as a case study to analyze the role and function of computational propaganda in the struggle for international discursive power, in order to deepen the academic community's knowledge and

understanding of computational propaganda and provide new case support for the relevant theories, to enhance the theoretical nature of the research on computational propaganda, and to promote the development of the theory of discursive power.

2. The Concept of Computational Propaganda and Its Relation to Discursive Contestation

2.1. Computational Propaganda

2.1.1 The Concept of Computational Propaganda

The concept of computational propaganda was first proposed by Woolley, Samuel C. and Philip N. Howard in 2016. They looked at the technical aspects of computational propaganda and defined it as “an amalgam of social media platforms, automated agents, and big data designed to manipulate public opinion in an organized manner” [3]. This definition is generally recognized by the academic community. Subsequently, Philip Howard and Bolsover Gillian added a definition of the social attributes of computational propaganda based on their existing research, emphasizing that computational propaganda has both technical and social attributes. At the social level, the definition of computational propaganda is derived from the definition of propaganda - communication that deliberately distorts symbols, appeals to emotions and prejudices, and bypasses rational thought in order to achieve the specific goals of its creators. Computational propaganda is propaganda using computational technological means [4]. This paper follows existing scholarship in the academic community and argues that both the technological level definition and the social level definition are important components of the definition of computational propaganda. In this paper, computational propaganda is a combination of technical and social attributes, computation represents its technical means, and propaganda represents its social purpose, and the two are complementary and indispensable.

2.1.2 The Operational Mechanism of Computational Propaganda

Computational propaganda has been widely used in political events in various countries, and a relatively mature operational mechanism has been formed. Controversial topics and misleading information, political models, intelligent algorithms, social robots and social media are the five elements of computational propaganda, which are interconnected and interact with each other, and are skillfully combined and interlocked to form the operational mechanism of computational propaganda.

Specifically, controversial topics and misleading information are the content basis of computational propaganda. 2019-2020 research reports on computational propaganda by the Oxford University Institute have found that the dissemination of various forms of disinformation, such as doctored images or videos, is the most prominent communication strategy of computational propaganda [5, 6].

Political modeling is a vector of computational propaganda. Political campaigns “use algorithmic techniques to rapidly and massively disseminate controversial and misleading political models on social media in an attempt to control conversations, narratives, and psychological space” [7].

Intelligent algorithms are the technological safeguard of computational propaganda. Computational propaganda enhances the visibility and invisibility of specific messages through recommendation and filtering algorithms as a basis for disseminating political messages on the Internet [8], and uses data-driven strategies based on algorithms to analyze and target specific demographics through political advertisements [5].

Social robots are the executive role of computational propaganda. In the age of artificial intelligence, the main executive role of propaganda has shifted from humans to bots. Computational propaganda utilizes intelligent bots to mimic humans for information dissemination and online interaction to manipulate public opinion [7].

Social media is a digital channel for computational propaganda. The characteristics of social media, such as virtualization, decentralization, massification, strong participation, strong digital orientation,

and large scale of user data, facilitate computational propaganda and make it the main platform for computational propaganda [7].

2.2. The Relationship between Computational Propaganda and Discursive Power Struggle

International discursive power refers to “the right to define international affairs and events, the right to formulate various international standards and rules of the game, as well as the right to judge and adjudicate what is right and wrong”, and a country possessing international discursive power possesses the ability to define international affairs in accordance with its own interests and standards [9]. International discursive power has always been the strategic center of gravity for all countries.

Computational propaganda is an emerging hidden means to fight for discursive power in international competition. In the competition for international discursive power, countries generally adopt both overt and covert means respectively. Overt means mainly include public media releases, diplomatic public speeches, etc., while covert means mainly refer to the means of competing for the right to speak that will not be recognized and publicized by the country, such as information delivery on social media. Computational propaganda, as an emerging form of propaganda, is being increasingly widely used as a covert means in the struggle for international discursive power. The large scale, high covertness and strong incitement of computational propaganda make it play a more and more powerful role in the struggle for international discourse. Especially in the context of fierce conflict and confrontation between countries in war, computational propaganda is favored by all countries, and along with the development of digital technology, it is more and more commonly used in the war of public opinion, and plays a unique and cannot be ignored role. Russia’s computational propaganda in the Russia-Ukraine conflict is one of the latest cases in which computational propaganda has been applied to the war of public opinion as a covert means of contending for the right to speak.

3. Russia’s Use of Computational Propaganda in the Russia-Ukraine Conflict

3.1. Russia’s Computational Propaganda Practices in the Russia-Ukraine Conflict

The information war in the Russia-Ukraine conflict in 2022 is different from any previous information war and has a unique historical significance. On the one hand, while previous information wars used media as the main platform, in the Russia-Ukraine conflict, social media became the main battlefield of the information war for the first time. On the other hand, in this Russia-Ukraine conflict, communication has for the first time been transformed from an auxiliary in the war to a protagonist in the war, and the cyber war, the war of public opinion and the Russia-Ukraine ground war are tightly connected and highly interlinked, which has truly made the globally integrated cyberspace become the second battlefield of the war, and has completely changed the previous pattern of cyber war, war of public opinion and information war [10].

Therefore, in this context, computational propaganda plays an important role in the Russia-Ukraine conflict. As a means of confrontation with the United States and other Western countries, Russia has carried out a large-scale computational propaganda campaign on social media, which has had a great impact on the situation of the Russia-Ukraine conflict. The following three main features are presented in this case of computational propaganda.

First, the use of mass social media as a platform involved global Internet users. The scope and scale of this propaganda campaign was huge, including Facebook, Twitter, YouTube, Telegram, and other large social media platforms, and among them, Tik Tok became the most important propaganda platform in Russia. At one point, there were a large number of war-related posts and videos on Tik Tok, some of which were supportive of Russia. However, the authenticity of these videos spreading real-time battlefield situations was generally unsuitable, and some were even found to be old audio inserted into current war videos. For example, the instance of Tik Tok users from Russia sending repeated posts about Ukrainians carrying out genocide in the Donetsk and Luhansk regions, killing children, using the exact same words that were not backed up by any evidence, was highly indicative

of computational propaganda. In addition to mass propaganda delivery, Russian computational propaganda on TikTok was integrated with recommendation algorithms, so that users who had shown an interest in the Russia-Ukraine conflict were highly likely to be pushed to relevant content, dramatically increasing the efficiency of computational propaganda dissemination [11]. As a result, the targets of the propaganda campaign were not only the people on both sides of the conflict, but also global netizens who used these social media with a huge number of users, which made it impossible for Russia to monopolize the information in the propaganda campaign, and the propaganda campaign faced greater uncertainty. One scholar has described the Russia-Ukraine conflict on this basis as “the first war reported on TikTok by super-empowered individuals who only own smartphones” [12].

Second, the information disseminated is diverse and confrontational. The information disseminated by Russia in this computational propaganda campaign fell into the following categories: first, messages on domestic social media that Russian troops had not harmed civilians, that Ukrainian civilians welcomed Russian troops and that Russian soldiers had died in the conflict. Second, accusing Ukraine of genocidal activities in the Donbass region. Third, questioning the authenticity of Ukrainian sources. Fourth, disclosing that the United States is building biological laboratories on Ukrainian territory. Fifth, pro-Russian groups from all over the world launched a pro-Russian campaign on social media [13]. These five types of information are posted by different accounts on social media as needed and are centralized and pushed on a large scale to achieve their intended purpose. The content of these messages shows that Russia’s computational propaganda messages are very confrontational, both offensive and defensive, and target not only Ukraine but also the United States and other countries in the Western world, which is in line with the public opinion environment in which Russia is completely surrounded and isolated in the Russia-Ukraine conflict.

Third, deep faking techniques are used extensively to produce false information. Deep forgery technology is “a kind of fusion of ‘machine deep learning’ and ‘forgery’ technology, merging and superimposing images or videos onto the source images or videos, learning from large samples with the help of neural network technology, and synthesizing false content through facial localization and correction, face transformation, false image, or video synthesis and other steps, the artificial intelligence technology that splices and synthesizes the voice, facial expressions and body movements into fake content” [14]. Using deep forgery technology, it is possible to produce false information that is extremely difficult to distinguish with the naked eye.

In the Russia-Ukraine conflict, some national intelligence services, cyber hackers, and even the general public made extensive use of in-depth forgery technology for the production of false information. This is the first time in information warfare that the use of artificial intelligence and training machine learning models as a source of disinformation [11]. This makes the dissemination of disinformation faster, more efficient and more difficult to recognize, not only lowering the threshold for manipulating public opinion through disinformation, but also leading to the intensification and escalation of the Russia-Ukraine conflict, making the social media information environment under the Russia-Ukraine conflict even more complex.

3.2. The Risks and Dilemmas of Computational Propaganda in the Russia-Ukraine Conflict

Computational propaganda has been noticed by academics due to its negative impact in political events. Although computational propaganda does provide an effective means for the state to compete for discursive power, the negative impacts of computational propaganda in manipulating public opinion, undermining democracy, tearing apart society, and exacerbating conflicts still exist, and computational propaganda also faces great risks and dilemmas in the practice of Russia-Ukraine conflict.

On the one hand, social media has not yet possessed the ability to censor and govern computational propaganda. In the Russia-Ukraine conflict, although the computational propaganda events of previous years have prompted major social media platforms to initially establish a review and governance mechanism for computational propaganda and false information, when large-scale

computational propaganda activities broke out the social media did not play the expected role, and false information is still difficult to suppress the widespread dissemination of social media platforms, so it can be seen that in the face of the huge volume of information and the number of accounts, social media It can be seen that in the face of the huge amount of information and the number of accounts, social media has not yet possessed the ability to censor and manage computational propaganda, which is still difficult to control. In addition, the social media censorship and push mechanisms do not operate in a completely fair and impartial manner, but are more favorable to Ukraine and Western countries. This is due to the fact that information published in Ukraine and Western countries is more popular with the majority of Western society and is more likely to be recognized by algorithms as quality content and pushed on a large scale, as well as to the fact that the social media companies themselves have their own value bias [13]. However, this can lead to a steering of user opinion and may even lead to the intensification of conflicts.

On the other hand, deep faking technology carries huge security risks. Deep forgeries can produce false information that is extremely difficult to distinguish, but the use of this technology is completely open to the public, and the relevant tools can be found directly on the Internet and can be created even without any knowledge of coding. It can be said that there is no threshold for the use of deep forgeries, and there were indeed many instances of ordinary people using deep forgeries to create false information during the Russia-Ukraine conflict [14]. Therefore, deep forgery technology has a huge security risk. The widespread use of deep falsification technology will lead to a larger scale and higher quality dissemination of false information, and it will be easier to manipulate public opinion, create hotspots, control thoughts and cause panic. Not only is it likely to contribute to the further expansion of conflicts and rifts within societies and between countries, but it also poses a threat to personal information, property and personal safety, and has a negative impact on social security.

4. Conclusion

To sum up, this paper cuts in from the perspective of international discursive power struggle, analyzes computational propaganda as a kind of hidden means of discursive power struggle in international competition, and takes the representative typical case of Russia's computational propaganda in the Russia-Ukraine conflict as a case study. By reviewing the existing studies on computational propaganda, the paper combs through the concept and mechanism of computational propaganda and analyzes its relationship with discursive power struggle in combination with the theory of discursive power. The conflict has completely changed the modes of the former network war, public opinion war and information war, and propaganda plays a key role in the Russia-Ukraine conflict. Through analysis, the paper argues that Russian computational propaganda in the Russia-Ukraine conflict is characterized by the use of mass social media as a platform that involves global netizens, the diversity and confrontational nature of the information disseminated, and the extensive use of in-depth forgery technology to produce false information. The propaganda faces the risks and dilemmas in the areas of social media's inability to censor and govern computational propaganda, and in-depth forgery technology's enormous security risks.

The characteristics and dilemmas of computational propaganda practice in the Russia-Ukraine conflict foreshadow the new development direction of computational propaganda and the potential threats it will bring. Along with the rapid development of the digital era, computational propaganda is also in constant development, and will face more new situations and new problems. How to effectively realize the regulation and governance of computational propaganda requires further research. Scholars need to pay closer and long-term attention to computational propaganda, and enhance the theoretical, systematic and scientific nature of the research, so as to understand computational propaganda in a more in-depth manner and provide guidance for practices.

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