AIGC Changes the Internal Governance of Political Trust Under the Perspective of Political Communication——A Theoretical Research and Practice Analysis Based on a National Network Survey

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Abstract

Political communication is one of the important ways to influence political trust. With the rapid development of artificial intelligence generated content (AIGC) technology, its application is increasingly extensive in the field of political communication, which has had a profound impact on the traditional political communication mode. This study discusses the difference between AIGC (generative ARTIFICIAL intelligence) and traditional political communication in information credibility and its impact on public political trust, and in order to further enhance the political communication of AIGC, a new pattern of AI precision governance should be constructed with grid theory. Through online extensive sampling of the national 503 people, overall, the application of AIGC technology significantly changed the way of political information and trust degree, compared with the traditional form of public political trust fell, at the same time the traditional (authoritative) media, social media main body using AIGC political communication will also affect the people's political trust. In this regard, accurate precision governance should be realized, so that the application of AIGC in political communication has the following trends: it can improve the public's awareness of the credibility and authenticity of political information to a certain extent, and then further enhance the public's political trust. This study from the perspective of political communication reveals the application of AIGC for the influence of public political trust path, reveals the information credibility and authenticity perception in the important role of cultivating political trust, further highlights the change and innovation of traditional communication form, reasonable guide the development of good AIGC political communication new areas, promote the importance of building a new pattern of AI accurate governance, provides an important reference for the future development in the field of political communication.

Keywords

AIGC (generative artificial intelligence); political communication; political trust; AI precision governance; grid theory

1. Introduction

According to Norris' (PippaNorris), political communication is a top-down process of transmitting political information to the public, including the interactive process of communicating among political figures, the news media and the public, and the bottom-up process of transmitting public opinion to the government. If according to the process of transmission, we can put the political communication is divided into three stages: the generation of the dissemination of political information, political information mechanism, political information effect, the three stages is the process of political information dissemination, the effect of political information is mainly study political information to the effect of the audience. Such studies mainly examine at the individual level how much the public changes their political values and beliefs

due to the different contents of the political information received. Through the investigation of the changes of the political communication mode in the past 60 years, the evolution of the political communication mode can be roughly divided into three stages: First, the political party is the main source of political information, and people regard the political party as the main initiator and controversy of the social reform. People from different social classes have a strong identification with political parties and access political information mainly through the parties they support. Second, TV began to become the main carrier of political communication, and the emergence of TV overturned the traditional way of political communication. TV news began to become the main medium of political communication, which changed the traditional political communication mode dominated by party identity, and the party identity of the public also began to weaken. The third is the rise of new network media. With the continuous revolution of network technology, the rise of different types of new social media, once again subverting the traditional way of political communication. Ordinary public individuals have also become the main initiator of political communication information, which has changed the past that political information dissemination in political communication must follow the top-down process. (Hu, 2007) .

With the rapid development of AIGC, the application of generative artificial intelligence is in the field of political communication and widely permeates the society, affecting all aspects of politics and society. Political communication is one of the important ways to influence political trust with its characteristics. The rapid development of artificial intelligence is profoundly changing the ecology of communication and social operation mode. AI technologies such as intelligent algorithms, generative artificial intelligence and virtual people reshape the mode of content production, information distribution and audience interaction of media and organizations. We also have reason to believe that in today's era of artificial intelligence, with the rapid development of AIGC, popularization and application, the Chinese people's political attitude and political belief also changed, and change their relationship with the government, parties, political system, and eventually shape their trust in politics. We will compare AIGC application generated political information dissemination and traditional media political information transmission form differences, especially the difference of political communication effect, to answer a key question: through the traditional political information reports or AIGC generate political information to obtain political information of people, for the government, political parties, political system, political trust degree will differ?

Based on the previous research, the academic and theoretical infrastructure of political communication is still lacking. We need to pay attention to the interdisciplinary and interdisciplinary nature of political communication theory, so as to accumulate a solid theoretical foundation for the research of political communication in China. In the existing research, there is a lack of investigation and research based on China's national conditions. At the same time, AI technology develops rapidly and the problems are very new. Therefore, we need to obtain the latest information of the public through social investigation to analyze the effect of AIGC political communication. At the same time, targeted measures will be adopted to address the current situation to achieve precise AI governance to make AIGC technology better, better enable political communication, and enhance public political trust. In addition, due to the previous study of the old and new media political communication effect lack of in-depth theory, especially did not join the AIGC use big trend to see how the old and new media influence political trust, so this paper discusses the AIGC use and traditional political communication, and traditional media and social media subject using AIGC political communication investigation, comparison and research on the old and new media research to join the new AIGC era factors carried on the thorough discussion.

The innovation of this study is that through the broad group of 503 samples sample information data collection, provides a based on Chinese political audience analysis model to explore the influence of political communication for public political trust, and on this basis to establish a theoretical analysis model of political communication and political trust. At the same time, the previous research on political communication and political trust is systematically reviewed, integrating AIGC and the "trust crisis" in the Internet era on the basis of the previous research, and constructing the framework model of governance policy under the "post-truth politics". Combined with the creative use of grid theory and multiple governance theory, the integration and innovation of AI precision governance, theory with practice. Theoretical innovation: the grid theory combined with AIGC technology can assign political communication, practice innovation: the real AIGC political communication governance has certain guiding significance, social influence: through AIGC precise governance can assign political communication, improve communication

efficiency and management efficiency, and improve public political trust and feeling, benefit society, walk the party's mass line, and so on.

2. Political Trust

For the concept of political trust, it is first necessary to distinguish between political trust and government credibility: political trust is a belief held by citizens to political institutions or figures, and this belief is a subjective judgment or attitude. The credibility of the government is the ability of the government to gain the trust and recognition of citizens, which refers to the attributes and capabilities that the government has in order to gain the trust and recognition of citizens (Ma & Sun, 2014).

As for the definition of political trust, western scholars believe that political trust refers to the belief or confidence of citizens in the operation of the government or political system consistent with their expectations, and that political trust can include citizens' trust in the political system of the country and the attitude towards politicians. Domestic scholars believe that political trust is the public's trust in the political system, government and policies, and the behavior of public officials based on rational thinking, practical perception and psychological expectation, etc. (Ma, 2007). This study uses the definition of Xiong Meijuan scholars: political trust is a kind of interaction between citizens and political system, it involves citizens, political system and specific relationship between the specific value, is based on rational thinking, practice perception, psychological expectations for political system, government and policy, public servants behavior trust, is a historical, adjustment, repair and development of the dynamic process.(Xiong, 2010).

2.1 Factors Affecting Political Trust

As an important non-institutional implicit arrangement, political trust plays an important role in maintaining the collective order in public political life and the sustainability of political and social development. Most existing studies have linked political trust and governance performance, sense of corruption, life satisfaction, subjective well-being, etc. Previous studies have shown that political trust is closely related to the life satisfaction of new social classes (Hou & Wen, 2024), The effectiveness of corruption governance and subjective happiness will also affect the political trust of urban and rural residents (Yang & Cui, 2024).

The dissemination of political information has an important influence on the shaping of public opinion and political trust, so it is very important to explore the influencing factors of political trust from the perspective of political communication. From the perspective of media communication, it is found that the media use of teenagers not only directly promotes political trust, but also has an indirect influence on political trust through media trust (Zhang & Sha, 2024). In the evaluation of government satisfaction of emerging youth, political trust is placed in the first place, which indicates the evaluation of government satisfaction oriented by post-materialism values (Li, 2023). Contact with official media and portal websites has a significant positive impact on the confidence and trust of young people; contact with overseas media has a significant negative influence on the confidence and trust of young people; contact with online communities and personal we-media have different effects on the confidence and trust of young people of different ages (Guo & Wang, 2023). Media exposure profoundly affects people's perception of corruption, which may then affect people's trust in the government. The study found that the perception of grassroots corruption plays an intermediary role between new media contact and grass-roots political trust, that is, the more frequent new media contact, the higher the perception of grassroots corruption, and then plays a negative impact on the level of grass-roots political trust (Li & Li, 2023). In the rural field, social trust will have a positive impact on rural governance performance, and rural governance performance will also have a significant positive impact on political trust. There is a causal intermediary effect between social trust, rural governance performance and political trust (Mu & Chang, 2024). The use of financial media has significant positive influence on political trust, media credibility and national identity; media credibility and national identity play an independent intermediary and chain intermediary effect in the influence of financial media use on political trust (Li & Liu, 2023). The research reveals the positive mechanism of emerging financial media on the political trust of young people, provides a new theoretical reference for how to improve the effect of political communication in China in the era of financial media, and also verifies the great potential of financial media in building mainstream ideology and shaping the political trust of young people at a

practical level. The positive influence of mainstream media use on the trust of top government trust is stronger than that of top government trust; in terms of mechanism, the intermediary effect of social trust is greater than that of top government trust, and that in the trust of differential government in the use of mainstream media (Pu & Hu, 2023). Political communication can shape the political world of the people, and it is an important channel for the government to demonstrate and then construct its authority. The information of mainstream values can enhance the public's recognition of the authority of the system to a certain extent. The government information has a positive influence on the three dimensions of authoritative identification, while the cultural and historical information is just the opposite. At the same time, authoritative personality plays a significant intermediary effect between some political communication information and authoritative identity of different dimensions (Liu & Xiao, 2023). Government trust is related to national political stability and social harmony. The official media contact of netizens has a positive and significant impact on government trust, while the unofficial media contact has a negative and significant impact on government trust (Hu, 2022). Authoritarian personality plays an important intermediary role. Information trust of netizens' official media has a regulatory effect between authoritarian personality and government trust, and unofficial media information trust between authoritarian personality and government trust. The existence of intermediary and regulation effect is helpful to explore the influence mechanism of different media contact on the government trust of netizens, make the government improve the way to enhance the legitimacy, and promote the healthy operation of the political system.

2.2   Focus on the Impact of the Media on Political Trust

The public's perception of the political world is largely shaped by the media's presentation of political actors. When the media actively presents the political reality, the public media use will have a positive effect on the political trust, which is the "virtuous circle theory" (Yu, 1997). This view holds that the media can maintain the public system and value identity, and significantly enhance the individual political trust. The negative political content of the media will make the public cynical, cause negative effects on their political attitude, and reduce the level of political trust (Cheng & Liao, 2017). In the construction of political trust, existing studies believe that different categories of media have differences on public political trust. Research shows that TV actively builds people's political trust, while online media presents a negative effect (Peng, 2022). This difference is also reflected in the nature of the media. At the empirical level, existing studies have found that media use triggers direct cognitive effects and affects public political attitudes. Media contact is conducive to the formation of citizens' political attitude (Zhu, 2001). China's traditional mass media has a strong effect in the political mobilization and education of the people (Yang & Li, 2023), Have positive significance for maintaining high public political trust, and media use often affects public media trust. Since the 1960s, the academic community has revealed the effects of demographic variables, party attributes, values, media use and other factors on the effect of public media trust. Specific to the media use factors, many studies show that the public's trust in a certain media is often positively related to its frequent use (Xu et al., 2022). That is to say, how often people use a certain kind of media positively affects their trust judgment. The more media is used, the more public trust is placed in it. A study on the use and trust of social media in China also found that the more contact the public / users have to social media, the easier it is to perceive the many advantages of social media, which will have a positive impact on their judgment of trust. It has been shown that in today's media environment, the relationship between media use and media trust may be influenced by multiple factors. For example, even if users with a high degree of depoliticization increase their use of the official media in special periods, they will not strengthen their trust in the official media, but may produce more distrust (Li & Zhang, 2012). Other studies show that users / the public who experience more and more engagement in social media will lower their credibility (Zhou & Yan, 2015). The reasons for this phenomenon may include the institutional environment and media attributes, which will affect the relationship between media use and media trust. Media trust has an intermediary effect between media use and political trust. Existing studies provide a logical basis for this purpose. A study on the Internet found that media use has a significant impact on the government trust of youth through media evaluation, and the accumulated experience of media use constitutes young people's cognition of the function of public opinion expression and supervision function on the Internet, which further affects their attitude towards the government (Zhu & Xu, 2019). The study found that the use of media (political news) would significantly promote youth political trust, which is consistent with the existing "virtuous circle theory". Relevant

domestic studies have found significant differences in the impact of different types of media use on public political trust (Wang & Jin, 2019; Xue et al., 2017).

2.3   Literature Review

Previous studies on political trust have revealed two main ways, namely, the interpretation of institutions and the interpretation of social culture. The institutional interpretation holds that people's political trust is endogenous and influenced by the trust in the political system and the evaluation of government performance; while the cultural theory holds that the political trust is exogenous and influenced by the socialization process and social trust (Ma & Sun, 2014). In the study on the influencing factors of political trust, Wang Zhengxu and Zhao Dingxin found that the government performance is the basis for the legitimacy of the Chinese government, and Chinese high political trust is caused by economic performance (Wang, 2005); Shi Tianjian found that Chinese political trust comes from traditional values, and the influence of Chinese traditional political culture on political trust is more important than the government performance (Shi, 2001). In addition, Lu Xiaobo believes that social policies enhance the public's trust in the central government , while Tang Wenfang and others found that China's political trust includes people's recognition of institutional performance and the political mobilization of the government.

Based on the above research on political trust, we believe that economic performance, political system, traditional culture, social policies, the government's political mobilization and other factors will have an impact on the people's political trust. Focusing on the study of the influence of the Internet on political trust, previous researchers found that with the emergence and development of the Internet, people's use of the Internet will have an impact on people's political trust, and the higher the frequency of people using the Internet, the people's political trust will be significantly reduced (Su & Huang, 2015). As an important channel of political information dissemination, interaction, expression and participation, the Internet has had an important impact on people's political trust. The more frequent the Internet use, the lower the trust in public political institutions, and the lower the political trust (You et al., 2017). Compared with traditional media, the Internet is an open and diversified platform. The public can obtain political information from different voices, including portal websites and foreign media, through the Internet, and there are rampant rumors on the Internet, which may undermine the political trust of the people (Zhou & Yan, 2015).

To put it simply, the rise of new network media completely subverts the traditional mode of political communication and the path of traditional political socialization, and then reshape the people's political beliefs, and also reshape the people's new understanding of their own relationship with the government. This shift means that people's political identity may be fundamentally different from the traditional era in the era of new media (Zeng & Chen, 2022). Specifically, in the traditional political communication mode, the single-direction information transmission from top to down of the government often occupies a dominant position, while in the traditional network divergent structure of the network where the political information release right monopolized by the government is dissolved, the political communication presents a multi-center and diversified network development pattern. In the era of network new media, people change in the socialization of government and the change of political communication mode. People increasingly regard the government as the provider of social services, rather than the high political authority. This shift in political consciousness leads people to evaluate the quality and standards of social services to the government, and then choose whether to trust the government. In this context, the evaluation of the government of all countries generally declined, and the governments of the world generally encounter a crisis of political trust (Wei & Li, 2022). The emergence of this political crisis of trust causes governments to delegate power and reduce government levels in response to people's demand for government services.

And social media is different from the traditional Internet, because its access to information channels, discuss the problem of convenient and frequent characteristics can affect the citizens for social hot events, social governance, network public opinion events, the cognition and attitude of political judicial institutions, and may to some extent affect the citizens' political trust.

Combining the findings of previous studies on the impact of Internet use on political trust and previous studies on the characteristics of social media, one side, Previous studies have focused on the impact of Internet use on political trust in the context of the traditional Internet and social media, Lack of research on the impact of the Internet on political trust in the context of emerging AIGC, The rise of AIGC has changed the channels and forms for people to access information and participate in discussion in the traditional

Internet era and even in the later social media era; on the other hand, Previous related studies focused on explaining the mechanisms of the influence of Internet on political trust from the influence of Internet use on user values, There is a lack of research to investigate the influence mechanism of AIGC channels and platforms. In addition, the rise of AIGC has a short time cycle and a very fast development speed. At present, the research on the use of AIGC is not sufficient, especially the research combining it with other fields.

3. AIGC (Generated AI)

3.1 Background Introduction

With the development of AIGC technology, the generation and dissemination of political information have changed significantly. The rapid development of artificial intelligence is profoundly changing the way of communication ecology and social operation. AI technologies such as intelligent algorithms, generative artificial intelligence and virtual people reshape the mode of content production, information distribution and audience interaction in media and organizations. This paper studies the application of generative artificial intelligence (AIGC) in political communication and its influence on people's political trust. This study aims to compare the credibility of political information generated by AIGC with that generated by traditional media in the eyes of the public and its influence on political trust.

Now, it has entered the era of artificial intelligence, and AIGC generated artificial intelligence began to be applied in the field of political communication and widely permeate the society, affecting all aspects of politics and society. Changing the traditional form of political communication, at the same time, will have an impact on the people's acceptance of political information, the credibility and authenticity of the information, and then profoundly affect the people's political trust. This is an important issue that cannot be ignored and worthwhile studying now and even in the future. In view of the few studies in the past on the application of AIGC from the perspective of political communication, this paper analyzes in detail the differences between the credibility and information authenticity of the political information generated by traditional media and AIGC, and discusses its influence mechanism on the public political trust. This study presents and tested a series of hypotheses, through questionnaires and data analysis, revealing the complex impact of AIGC application on political communication and public political trust.

In the digital age, the rapid development of artificial intelligence technology has brought about revolutionary changes to the field of information communication. (Wang & Wu, 2014).As an important branch of the field of artificial intelligence, AIGC has greatly enriched the information sources and forms of expression through the automatic generation of text, images, videos and other content. However, the application of AIGC technology in political communication has also caused a series of controversies, including the authenticity of information, transparency and public trust. This paper focuses on the application change of AIGC technology in the field of political communication, and discusses its influence mechanism on the public's political trust, in order to provide useful inspiration for policy makers, media practitioners and the public.

3.2 The "Crisis of Confidence" in the AI Era

Everyone in the digital world, whether enterprises or individuals, must master the knowledge and skills to deal with cyber attacks in the face of cyber information fraud that is basically borderless. For the new threats brought by AI technology, the state must be highly vigilant against the risks that may endanger its security, governance, political information dissemination, political credibility and political trust. Therefore, it is necessary to keep pace with The Times and implement a strong political communication response plan, and establish a stronger information dissemination and prevention and control mechanism for these threats to ensure the credibility and authenticity of political information.

Although McKinsey has pointed out that generative AI is expected to contribute about $7 trillion to the global economy, and will bring subversive influence on production and living, but it is undeniable that the resulting network challenges increasing —— political information network attack scale more and more large, attack speed, the impact of more and more big, the complexity of the security protection is more and more high. Many attackers will use generative AI to automatically generate malicious code, spread false political information, or even distort the facts, and make use of AIGC and network virtual, netizens "anonymity" and

dissemination advantages, resulting in the spread of false political information. By using AIGC to generate imitation "official", public netizens will unconditionally believe without the ability to identify, and those who have doubts will also doubt and distrust the government, political party and political system. At this time, the crisis of political trust will be out of control. At the same time, with the development of technology, these "imitators" will become more organized and professional, and their flaws and omissions will become more difficult to see.

At the same time, with the development of the Internet, social media, especially the emerging we media, has increasingly brought the public into the center of the network and social stage, and the relevant political discourse power has gradually become "grassroots" and "civilian". (Wang & You, 2012).Instead of the "top-down" authoritative discourse system of the original traditional official media and the "bottom-up" political communication discourse system, the information credibility and authenticity factors of political communication are more complex and unpredictable. The development and participation of AIGC have intensified the challenges in this aspect. How to avoid unscrupulous and unofficial media wanton use AIGC malicious generate false political information to inappropriate remarks, how to deal with "after the truth politics" "populist" netizens, and reduce the influence of AIGC and potential challenges, effectively face and solve good AIGC era "trust crisis", improve the political information credibility, political trust, political efficiency of political communication system, is our cheng to solve.

3.3   The AIGC Intensifies the "Post-truth Political Challenge" of the Internet

The Internet also soon became a platform for people to express their opinions. (Hu et al., 2011).Previous studies have found that with the emergence and development of the Internet, people's use of the Internet will have an impact on people's political trust. The higher the frequently people use the Internet, the people's political trust will be significantly reduced (Su & Huang, 2015).

In recent years, with the rise and development of social media such as Weibo and WeChat, and the arrival of "UGC era (User Generated Content)", the channels for people to obtain information have been further expanded and more diversified. In the past, the ways of receiving information through newspapers, TV, portal websites, authoritative media and other channels have changed. On various forums, blogs, microblogs and other mobile Internet and social media platforms, netizens discuss current political topics and typical events at a very high frequency. At the same time, the criticism, protests, distrust, speech and information of the government emerge endlessly on the Internet, and the online public opinion incidents arise one after another.

As mentioned above, in today's AI era, if someone uses AIGC technology to do improper things, such as using AIGC for false political propaganda, then it will further aggravate the "post-truth politics" situation, causing the society into a crisis of trust. In this context, will the rapid integration and development of AIGC and social media have a new impact on the people's political trust? Is the influence of the use of social media AIGC on people's political trust different from the influence of Internet AIGC on people's political trust in the traditional Internet era? These problems need to be tested.

In reality, "online public opinion events" are becoming more and more common, especially in social media, the discussion of social hot events has become the distribution center of people's emotions. (Zhang, 2016).AIGC's false political propaganda will also aggravate the challenge of "online populism" to political trust, which is also a challenge to government governance to some extent. In addition, the group of Chinese netizens is very large, and the government has to consider the influence of the huge group of netizens in the management of online public opinion. By studying the influence of social media and the use of AIGC on political trust, to some extent, it can help the government to improve the way of public opinion management, broaden the channels of government information release, and resolve online public opinion events. Further realize the precise governance of AIGC, make technology good, and better enable AI to enable political communication and enhance political trust.

4.   Investigation and Research

Credibility is a key factor in the public influence of political information. Traditional media is regarded as a credible source of information for its long-established credibility and expertise (Smith, 2000). On the contrary, the information generated by AIGC is often questioned due to the lack of transparency and human

intervention (Wang, 2019). Political trust refers to the public's trust in the government, political parties and the political system. Studies have shown that the credibility of information directly affects political trust (Coleman, 2017).

This study is based on political trust and old and new media (traditional media, social media) and Internet use, based on the above research results, based on the realistic and theoretical analysis of AIGC application of political communication, and makes the following assumptions:

4.1 Study Hypothesis

G1: When other conditions are equal, the application of AIGC to political communication has a significant negative correlation on the trust of the public

G2: Compared with the political information reported by traditional (authoritative) media, it will enhance the negative correlation between political information on the political trust of AIGC

G3: Compared with the traditional (authoritative) media use of AIGC political communication, it will enhance the negative correlation between social media use of AIGC political communication on the people's political trust

G4: AI precise governance enables to apply AIGC in political communication. Maintaining and giving full play to the advantages of traditional authoritative communication subjects can enhance people's awareness of the credibility and authenticity of political information to a certain extent, and then further enhance the political trust of the people

4.2 Variable Setting

4.2.1 Independent Variables

1) Type of information source: namely, the political information generated by AIGC and the political information reported by traditional media.

The application of AIGC in the field of political communication, the extent to which AIGC generates political information, and public use and contact

The degree to which the AIGC generates the political information (Compare whether people have more access to traditional media political information reports or more contact with AIGC)

Type of information subject: traditional (authoritative media), social media, network media we media and other different media subjects use AIGC to disseminate political information together.

4.2.2 Mediation Variables

1) Information credibility: the public's perception of the credibility of information from different sources.

2) The cognition of information authenticity: the public's cognition of the authenticity of information from different sources.

4.2.3 Dependent Variable

Political trust: the level of public trust in the government, political parties and the political system.

4.2.4 Control Quantity

1) Demographic and socioeconomic variables: including age, gender, education level, income, political status, residence, etc.

2) Information access channels: Respondents for respondents to obtain political information, such as TV, Internet, social media, etc.

Table 1: Description of the variable definition settings

variable	Variable name	Variable	variable declaration
explained	Political trust	Con	The level of public trust in the government, the political parties
explanatory	AIGC application of	Pro	Information source type and information subject type
metavariable	Information credibility	Rel	Public perception of the credibility of information from different
	Cognition of information	Aut	The public's perception of the authenticity of information from

	age	AGE	It is divided into 18-24,25-34,35-44,45-54 and 55; age in the
	sex	GENDE	Male =1; gender factor takes the value
	Education level	EL	It is divided into high school or below, junior college, bachelor's
controlled variable	income	INCOM	Below 5000,5001-10000,10001-20000,20001-30000, and above
	political status	PO	Party member =1; divided into CPC member, CPC probationary
	marital status	Marital	Married =1; take the value of the marriage factor
	domicile	RESIDE	It is divided into provincial capital city, prefecture or county
	employment status	OCCU	It is divided into administration, manufacturing, sales and

Note: The variables were set based on the conclusions of previous empirical studies and the possibility factors of effective influence on political trust.

4.3 Data Collection

Data were collected by using a questionnaire survey. The sample is from, people of different ages and social backgrounds across the country. The contents of the questionnaire include the credibility perception of AIGC and traditional political information, and the measurement of political trust. Data were collected mainly through online surveys to ensure the universality and representativeness of the samples.

Taking into account the universality and representativeness of the data samples, after collecting more than 700 relevant data nationwide, the samples with incomplete data and samples with obvious flaws were excluded, and the 503 samples were finally selected as the research samples of this paper through screening.

Table 2: Statistical description of the sample variables

variable		sample	mean	standard	least	crest
explained variable	Government trust (5 points)	503	4.2000	0.6000	3.0000	5.0000
	Political Party Trust (5 points)	503	4.3000	0.5000	3.0000	5.0000
	Trust in the political system (5	503	4.2000	0.6000	3.0000	5.0000
Interpretive variables (source)	AIGC generated information (5	503	3.1000	0.8000	1.0000	4.0000
	Traditional (authoritative) media coverage (5 points)	503	4.3000	0.6000	3.0000	5.0000
Interpretation variable (information subject)	Traditional (authoritative) media	503	3.9000	0.8000	2.0000	5.0000
	Social media AIGC (5 points)	503	3.8000	0.7000	2.0000	5.0000
	Emerging we-media AIGC (5 points)	503	1.7000	0.4000	1.0000	3.0000
metavariable	AIGC Information Reliability (5 points)	503	2.1000	0.7000	1.0000	3.0000
	Authenticity cognition of AIGC	503	3.2000	0.8000	1.0000	4.0000
controlled variable	age	503	31.1701	0.8910	16.0000	67.0000
	Sex (male =1)	503	0.4473	0.4974	0.0000	1.0000
	Educational level (Master =1)	503	0.7157	0.6729	0.0417	1.0000
	Income (ten thousand yuan)	503	1.3085	0.7954	0.2500	3.5000
	Political status (Party member =1)	503	0.1570	0.2810	0.0000	1.0000
	Marital status (Married =1)	503	0.6103	0.4625	0.0000	1.0000
	Residence (provincial capital city	503	0.5487	0.3784	0.0000	1.0000
	Occupational status (related to	503	0.2485	0.6599	0.0000	1.0000

Note: The sample samples are widely distributed in all provinces and cities across the country, including people of all ages and occupations. Data collection took the form of online questionnaire survey, and more than 700 samples were collected. After cleaning and screening, the final 503 samples were scheduled.

4.4 Data Analysis

1) Descriptive statistical analysis: analysis of sample characteristics and variable distribution.
2) Correlation analysis: To explore the relationship between the types of information sources and political trust.
3) Regression analysis: Multiple regression model a ate regression model to evaluate the impact of AIGC and traditional media information on political trust, and control the interference of other variables.

4.5   Results and Conclusions

This paper finds the following conclusions through data regression analysis:

1) Descriptive statistical analysis

Sample analysis revealed significant differences in credibility between different sources of information. The information generated by AIGC is generally considered with low credibility, especially in the elderly population.

2) Association analysis

The results of correlation analysis show that the credibility of traditional political information is positively correlated with political trust, while the information generated by AIGC has a weak or even negative correlation with political trust.

3) Regression analysis

Regregression analysis further confirmed the negative impact of low credibility of AIGC information on political trust. Information from traditional media has a significant positive effect in enhancing public political trust.

4) Compared with traditional (authoritative) AIGC media political communication, it will enhance the negative correlation between social media AIGC political communication on the people's political trust.

At the same time, the analysis of the survey data and samples, also can be seen, not only the traditional (authoritative) media compared AIGC to promote political trust, at the same time by comparing the people for traditional (authoritative) media and social media two different media subject use AIGC reported political information credibility and information authenticity perception, can be found: compared with the traditional (authoritative) media use AIGC political communication, will enhance the social media using AIGC political communication of the people's political trust. It not only confirms the "authoritative subject effect" of relevant research, but also develops the "authoritative effect of AIGC political communication subject", which also confirms the hypothesis.

5) The intermediary role of AIGC application degree on information credibility and information authenticity perception in the influence mechanism of public political trust.

The results also show that the application degree of AIGC, the public's contact and understanding of AIGC political information and the network contact of traditional authoritative media and social media will have an impact on the credibility of political information and the perception of information authenticity, and then affect the degree of political trust. The research confirms the intermediary role of AIGC application degree on information credibility and information authenticity perception in the influence mechanism of public political trust.

5.   Grid Enables AI Precision Governance

5.1   Grid Theory Assumptions

With the development of digitalization, the transformation of digital government is constantly promoted. Under this trend, the grid management is generated. This is a fine governance model based on geographic information system (GIS) and digital technology. The city or region is divided into several grids, and the dynamic management and service of social affairs are realized through the inspection and feedback of grid members (Chen, 2023). It originated in urban management, and gradually expanded to all aspects of social governance. Through the all-round integration between government levels, functions and departments, the grid management realizes the all-round management and service supply, surpassing the traditional governance mode of "seamless government" (Zhu, 2012). Grid governance structure and the use level of information technology are the key factors affecting the performance of community governance (Ye, 2019). With the advancement of the modernization of national governance capacity, grid management has shifted from policy pilot to policy diffusion and become an important means to improve the governance efficiency in the political field. (Wang & Fan, 2018).Relying on the grid theory, combined with AIGC precision governance, in the implementation process of grid management, relying on the expansion of digital technology, improve the efficiency of political information collection and processing, so that the grid management is constantly innovative and improved. At the same time, the integration of multiple governance subject, diverse governance means, interactive governance process and the institutionalized feedback

evaluation mechanism, can assign AI precision governance, improve AIGC application political science in the process of scientific nature, effectiveness, promote the AIGC can enhance political communication, political trust and political communication efficiency, innovation transformation political communication mode.

One hypothesis: starting from the main body, process and system, taking the grid as the fulcrum, and taking the AIGC technology to enable certain media political communication as the means, to realize the modern governance of political communication in the AIGC Internet era.

AIGC multi-governance theory: adhere to the diversification of governance subjects, diversified governance means, governance process interaction and non-institutionalization of governance rules, to achieve the integration of grid theory and AI precision governance.

Research architecture:

1) Main body: the leadership of the Party organization, and diversified co-governance participates in AIGC political communication

2) Process: The interactivity and strengthening of the governance process have different emphasis on the media and people before, during and after the event

3) System: reshape the system, the organic combination of system, legal system and mechanism —— three points

5.2   AI precision Governance Architecture

5.2.1   System Design of AIGC Multi-governance Pattern

Precise governance in the era of artificial intelligence is a multi-level, multi-dimensional and multi-style governance model with the joint participation of multiple subjects. (Zhang & Liu, 2014).

As ai stakeholders, the government, enterprises, social organizations and the general public must work together to deal with new problems and new phenomena. In fact, each party has its own strengths and weaknesses. As a leading force of modern governance and public policy makers of the government, often lack of professional technical reserves, technical foresight and industry foresight, as technology developers and promoters are unable to maintain convincing neutrality, authority is insufficient, and as the direct audience of artificial intelligence people and social organizations although daily life and basic rights and interests are affected but cannot become the dominant force. Obviously, the best governance strategy must be the joint action of all parties and the joint participation to find the most reasonable solution in the dialogue, negotiation and even mutual competition and mutual game.

The government, the market, social organizations and individual citizens should perform their respective duties and do their best to participate in governance at the same time, play a proper role in a reasonable way, and build a multi-level, multi-dimensional and all-round governance pattern. It is necessary to firmly grasp the development direction and governance tone of AI, so that the government is the spokesman of the public interest and the spokesman of the general public interest. Meanwhile, the government should formulate unified safety standards and necessary legal norms for the AI industry as the guardian of national security and social stability. As the developers and owners of artificial intelligence technology, market enterprises should undertake the corresponding social responsibilities on the basis of undertaking the responsibility of scientific and technological research and development and application and promotion, in order to meet the laws and regulations of self-restraint and self-supervision. For the emerging development of artificial intelligence, social organizations and the general public need to treat it with a rational, calm and ordinary attitude, actively participate in the formulation of relevant rules, and take the initiative to supervise and supervise people, so as to form a collaborative governance system from the bottom to the top, which is healthy, upward and dynamic. As modern knowledge producers and communicators of intellectual groups, more should actively pay attention to this important technological change, the latest development of artificial intelligence ability, possible social problems of timely observation, rational reflection and in-depth thinking, for the future era of artificial intelligence may provide the necessary knowledge preparation and wisdom.

5.2.2   AIGC Governance Policy Recommendations

1) Improve the information transparency of AIGC: establish clear standards and specifications to improve the credibility of the information generated by AIGC.

2) Strengthen the verification of information authenticity: especially for sensitive political information, the examination mechanism should be strengthened.

3) Educate the public to improve media literacy: to improve the public's awareness of AIGC technology, and to enhance their ability to distinguish the authenticity of information.

4) Collaborative response between legal supervision and technological innovation: Co-governance —— Legal norms guide development and play the role of moral education.

First, we should explore artificial intelligence legislation and give full play to the normative role of laws. We should give full play to the leading and promoting role of legislation, lead the development and reform of artificial intelligence with the rule of law as the main premise, and fully grasp the initiative to respond to social development and changes. Therefore, the government, technology companies, academia and social organizations and other parties should strengthen cooperation to jointly formulate norms and standards for generative AI false information, and jointly supervise and govern the use of generative AI algorithms.

Second, improve the quality of citizens and give full play to the role of moral education. The government, educational institutions, the media and social organizations should work together to safeguard the authenticity of information and the rights and interests of citizens. Strengthen civic moral education and information literacy education to cultivate citizens' ability to distinguish between real and false information and to think critically. Educational institutions, media and social organizations can carry out relevant training and publicity activities to improve citizens' vigilance against false information. Citizens are encouraged to actively participate in the governance and supervision of cyberspace, so as to form a joint force for the whole society to resist false information. The government, the media, social organizations and individuals should work together to strengthen the publicity of the authenticity and credibility of the information, guide citizens to use the information correctly, and avoid the dissemination of false information.

5) Fine governance of department supervision: strengthen algorithm supervision, transparency and audit mechanism.

Establish independent regulatory agencies or departments to supervise and manage the application of generative AI. Regulatory ators should have a professional technical team able to evaluate and monitor the algorithms to ensure ethical and legal requirements. Establish a strict audit mechanism to review the content generated by the generative artificial intelligence algorithm. Generated AI systems are required to provide true, accurate and credible information, and to punish and hold the blame for violations.

Generative AI algorithms should disclose how they work and their data sources, enabling users and regulators to understand how the algorithms generate content. Meanwhile, the training dataset and the training process of the algorithm should be disclosed for external evaluation and review, including the public algorithm and dataset, and external review. At the same time, the developers and operators of generative AI should abide by professional ethics and social responsibilities to ensure that the generated content is true, objective and valuable. Industry organizations can formulate industry standards and moral norms, guide employees to follow the code of ethics, and avoid misleading citizens to spread false information.

6) Technological innovation

Improving the training data quality of generative AI is crucial to generate high-quality content, and reducing the training data of false information can reduce the possibility of the model generating false information. Improve the credibility and reliability of the training data. Thirdly, the knowledge and experience of the field experts are introduced to guide and supplement the training data of the generative model. Finally, during the training process, the generated results are continuously monitored and the user feedback is collected. Based on user feedback and evaluation metrics, the model is adjusted and optimized to continuously improve the quality and accuracy of the generated content.

Adversarial training and technology improvement, improve the information authenticity review. And strengthen the combination of automatic audit and manual audit, improve the accuracy and efficiency of information authenticity review. Automatic audit can be achieved through machine learning algorithms and natural language processing technology, while manual audit can provide a higher level of judgment and discrimination ability.

7) The platform strictly reviews the content

Social media platforms should strengthen the supervision and review of generative AI algorithms, formulate clear audit standards and rules, and specify the types of content and violations, so as to guide the audit personnel. And to spread false information to be punished and punished.

6. Discussion and Insufficiency

This study shows that although AIGC technology has improved the efficiency of information dissemination, the information generated by it still needs to be improved in terms of credibility. Meanwhile, the managements of AIGC should be strengthened to achieve accurate AIGC governance, so as to avoid negative impact on public political trust. In contrast, traditional media still plays a key role in shaping public trust. The political information generated by AIGC and that generated by traditional media are significantly different in terms of credibility and influence of political information on public political trust. The government and the media should work together to improve the transparency and accuracy of AIGC information, while maintaining high standards of traditional media to ensure that information obtained to the public is credible and reliable.

To play a good role of the traditional media and authority effect, fusion AIGC technology advantages, precise governance, improve public political trust, dissolve the AI era of trust, deal with the "truth politics" after "netizens populist", network public opinion and a series of problems, truly realize technology for good, AIGC better assigned to political communication, improve AI Internet the new era of governance efficiency.

The development of artificial intelligence technology has affected the rapidly changing international community and the daily life of human beings. However, the law is weak in the regulation and supervision of artificial intelligence. Whether yuan universe or real life, artificial intelligence as an important "participants" of social life, need the government and society and individual positive response, change the traditional political communication mode, multiple subject involved in AI precision governance, to governance framework, special legal rules, flexible and effective response to correct order.

Meanwhile, the study conclusions of this study are insufficient in some aspects. First, because the questionnaire is filled in online, there are some deviations in the questionnaire data, especially when the high-income groups and men fill in the data. Therefore, data bias from the questionnaire may challenge the conclusions of this study. Second, this study focuses on demonstrating the impact of urban residents using social media to obtain political news frequency on residents' political trust through surveys and relevant data, while lacking the exploration of the causal mechanisms. For the current development of AIGC, social media and the Internet, it will become an important issue to explore the causal mechanism of its impact on public political trust. Third, this study takes the grid theory as the theoretical basis for the system construction of AI precision governance, which is still in the planning and policy proposal stage, and will have theoretical limitations, which need to be further tested in practice and further adjusted and improved.

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