An Empirical Study on the Causes, Governance and Management Measures of Internet Violence in the Perspective of New Media

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Abstract. With the rapid development of new media technology, the phenomenon of cyber violence has gradually come to the forefront, becoming an important is-sue that affects social stability and individual mental health. This paper utiliz-es empirical research meth-ods to deeply explore the causes of cyber violence and its governance measures. It is found that the emergence of cyber violence is closely related to various factors such as intention, power imbalance, ano-nymity and openness. The results of the study have certain theoret-ical and practical significance in guiding practice and reducing the occurrence of cyber violence.

Keywords: cyber violence; empirical research; associated coupling theory; Social Man-agement, Governance Measures

1 Introduction

The new media era has accelerated the speed of information dissemination, and at the same time, it has also triggered a series of social problems. Internet users speak freely in the virtual world where laws and regulations are imperfectly controlled with the help of the weak norma-tivity and anonymity of the Internet, which makes every audience not only a commentator but also an opportunity to become a domi-nant player in the event, which leads to a series of social events gradually evolving and fermenting into cyber-violence under the impetus of diversionary reporting by online media and polarization effect of the netizen population, and the frequency of such incidents is also increasing. The frequency of such incidents is also in-creasing. Some people, because of certain opportunities, inexplicably become the target of network "invisible people", under the bombardment of the victim is often suffered from physical and mental double "storm", while the difficulties in defend-ing the rights after suffering from cyberviolence, but also make the victim re-victimized [1]. In order to improve the ecological environment of online public opinion, this study attempts to analyze the causes of cyber violence and measures to reduce the tragedy caused by cyber violence.

2   Literature Review and Theoretical Framework

2.1   Literature Review

In his paper, Li Chaoyang said that the death instinct reflects Freud's interpretation of human nature as a kind of sexual evil, believing that human beings are born with an aggressive desire to destroy [2]; Zhou Man et al. said that when the majority of people reach a unanimous view on a certain event, the remaining minority will be forced to accept such a view due to the pressure of the group [3]; Xiang Yusuan said that the "protection" of anonymity has allowed rumors and online violence to have a voice and to occur [4]; Chen Yuting said that rumors and online violence have a place and a possibility to occur under the "protection" of the anonymity system [5]. Yusan Xiang said that false information, cybercrime and other unlawful acts occur freely under the "protection" of anonymity, and rumors and cyberviolence have a place to be heard and a possibility to occur [4]. Among them, there is no lack of adding oil and vinegar to the original incident, and even adding subjective insights in front of the objective facts, leading the viewers astray and deliberately amplifying them, and through the dissemination and superimposition of multiple parties, what the viewers see is often at variance with the facts, or even contrary to the facts, which in turn makes some of the radical netizens launching a denunciation on the Internet and fermenting into cyber violence [5].

Based on the above studies, this study summarizes the causes of cyber violence into four fundamental factors: intent - people have an innate desire to be aggressive for the purpose of destruction, power imbalance - the herd mentality leads to the power gap between the abuser and the victim, anonymity - the "protection" of anonymity to speak out, publicity - the distortion of facts through the media, and the exposure of private information through "human flesh searches". Publicity - the distortion of facts through the media, the exposure of private information through "human flesh searches".

2.2   Theoretical framework

The theory of associative coupling originally originated from physics, and with the expansion of the scope of the discipline, its theoretical connotation has also been developed accordingly. The theory is used to describe the dynamic association phenomenon that two or more systems are united by the interaction and coordination between their modes of motion [6], while coupling can be understood as a measure of the degree of interdependence between two or more modules. Combined with the fact that cyber violence is characterized by suddenness and emergency management, this study innovatively applies the theory of association and coupling to the study of the causes and management of cyber violence in the new media perspective. From the perspective of emergency managers, for these intertwined elements, to keep them as separate as possible and divide and conquer will make the effect of emergency response manifest. Through the questionnaire survey and literature search, we verify the relationship between the four factors of intention, power imbalance, anonymity, and openness and the results of cyber violence, and then try to find out the ways to avoid the occurrence of this kind of events from the perspective of the causes, i.e., how to reduce the coupling degree of interactions and interdependence between the various factors, i.e., decoupling, and at the same time, to improve the state, authorities, network operators, network users and other parties at the governance level.

3   Case Introduction

In July 2022, Zheng Linghua took a graduate school acceptance letter to her grandfather's hospital bed to announce her good news, and after sharing the photo online, she was subjected to mass cyber violence because of her long, pink-dyed hair. Under the pressure of curses, rumors and slander, Zheng Linghua suffered from depression. After more than half a year of advocacy, treatment and self-adjustment, she failed to survive the dark night and ended her 23-year-old life. This case is one of the most recent incidents of cyber violence, and to a certain extent, it reflects the common characteristics of today's cyber violence. Graduate student Zheng Linghua dyed her pink hair and shared it on the Internet, which is a common life action of the contemporary youth group that pursues individuality and loves life, but it was distorted and slandered by people with ulterior motives, and became a serious cyber-violence incident with continuous fermentation.

From the perspective of the "correlation and coupling" theory, we can find that the abuser's desire to slander and insult Zheng Linghua (intention), the fact that more and more netizens join the abuser's team as the incident festered (power im-balance), the disguised impetus of network anonymity (anonymity), the wide publicity of information dissemination, and the fact that the abuser's desire is not to be seen as an abuser, and the fact that the abuser's desire is not to be seen as an abuser, and the fact that the abuser's desire is not to be seen as an abuser.), the wide publicity and distortion of information dissemination and the exposure of Zheng Linghua's personal information by some of the abusers through human flesh searches (publicity). The four factors interacted with each other and eventually led to the tragedy.

4   Quantitative research

Combined with the above analysis, further questionnaire surveys were conducted to extensively collect people's views on cyber violence, and further in-depth quantitative research was carried out from a quantitative perspective.

4.1   Research object, Scale Design and Sample Measurement

This study used chance sampling method with snowball sampling method and distributed questionnaires from May 1, 2023, a total of 501 questionnaires, excluding 14 invalid questionnaires, the number of valid surveys totaled 487 people. The information of the research subjects is shown in Table 1.

Table 1. Frequency analysis of demographic variables

Form		Number	Proportion
Gender	Male	192	39.43%
	Female	295	60.57%
Age	Under 12 years old (excluding 12 years old)	16	3.29%
	12-18 years old (including 12 years old but not including 18 years old)	49	10.06%
	18-35 years old (including 18 years old but not including 35 years old)	325	66.74%
	35-60 years old (including 35 years old but	72	14.78%

	not including 60 years old)		
	60 years old and above	25	5.13%
Educational level	Junior high school and below education level	27	5.54%
	High school or vocational school education	62	12.73%
	Post-secondary education	69	14.17%
	Bachelor's degree	266	54.62%
	Master's degree or above	63	12.94%

General Information Questionnaire: The general information questionnaire includes gender, age, and education.

Causes of Cyber Violence Scale: This scale is divided into four dimensions: intention, power imbalance, anonymity, and openness, and the different dimensions are combined with this. The purpose of this study referred to the reference to the relevant studies of Li Chaoyang, Zhou Man et al.

The data collection of this study, which was carried out using a combination of online and offline methods, was officially distributed from May 1, 2023, and a total of 501 questionnaires were returned. The validity of the questionnaires was mainly judged by the lie detector questions, and the questionnaires that did not follow the prompts to select the appropriate answers were considered invalid and were eliminated. After elimination, a total of 487 valid questionnaires were obtained. The validity rate of the questionnaire is 97.2%. The characteristic distribution of the sample is basically consistent with the characteristic distribution structure of the research object, and the sample is highly representative.

4.2 Hypothesis Testing Analysis of Causes of Cyber Violence

As shown in Table 2, the Cronbach's α coefficient value of the scale is 0.93, which is higher than the baseline value of 0.800, indicating that the scale of this study passed the reliability test.

Table 2. Reliability analysis

Cronbach Alpha	Number of items
0.930	20

Validity is mainly divided into content validity and structural validity. In terms of content validity, this paper develops the scale based on many literatures and related theories, and refers to previous studies, so the content validity is good. In terms of structural validity, this study mainly explores the internal logical structure of the research items through the KMO value and Bartlett's sphericity test. As shown in Table 3, the KMO sampling aptitude measure value is 0.964, which is greater than 0.800. Generally speaking, the smaller the significance level of Bartlett's test of sphericity (P<0.05) is, the more likely that there is a meaningful relationship between the original variables. The probability of significance of the statistical value of this study is 0.000<0.01 which passes the Bartlett's test.

Table 3. KMO and Bartlet's test of sphericity

KMO Quantity of Sample Suitability	0.964	
Bartlett's test of sphericity	approximate chi-square	5305.918
	degrees of freedom	190
	significance	0.000

Descriptive analysis.

The scale combined with the Likert's classic five scale options are categorized as strongly disagree, disagree, unsure, agree, and strongly agree, which represent a score of 1 to 5, respectively, and the greater the mean value of each question item means that the more the respondents recognize and agree with this question. Modeling the Causes of Cyber Violence. Then, using Amos software to draw the path analysis of cyber violence causes. There is a high degree of correlation between intention, power imbalance, anonymity, openness and the impacts brought by cyber violence. As can be seen from Table 4, this model RMSEA adaptation results are good, GFI, CFI, NFI, NNFI are all greater than 0.9, indicating that the adaptation results are more satisfactory, and the overall fitness of the model is good.

Table 4. Table of overall fitting coefficients

χ^2	df	P	chi-square (math.) degree-of-freedom ratio	GFI	RMSEA	CFI	NFI	NNFI
-	-	>0.05	<3	>0.9	<0.10	>0.9	>0.9	>0.9
376.474	114	0.000***	3.302	0.929	0.069	0.949	0.929	0.94

*Note: ***, **, * represent 1%, 5%, and 10% significance levels, respectively.*

As can be seen in Table 5, based on the level of A2 (significant p-value of 0.000***), A3 (significant p-value of 0.000***), A4 (significant p-value of 0.000***), and Power Imbalance (significant p-value of 0.000***) presenting significance, then the original hypothesis is rejected, while its standardized loading coefficients are all greater than 0.4, which can be considered as having sufficient variance Explanatory rate performance of each variable can be shown on the same factor; the results of the remaining three groups of data are the same as above, all show significance, then the original hypothesis is rejected, at the same time its standardized loading coefficients are greater than 0.4, can be considered to have enough variance explanatory rate performance of each variable can be shown on the same factor. To summarize, the variables are statistically significant and therefore the original hypothesis can be rejected, i.e., they are not random but have real effects and are able to explain enough variance on a common factor and therefore the factor is considered valid.

Table 5. Table of factor loading coefficients

factor	variable	Non-standard load factor	Standardized load factor	z	S.E.	P
intent	A1	1	0.719	-	-	-
	A2	1.035	0.742	16.02	0.065	0.000***
	A3	1	0.74	15.974	0.063	0.000***
	A4	1.052	0.76	16.406	0.064	0.000***
power imbalance	B1	1	0.798	-	-	-
	B2	0.971	0.794	19.352	0.05	0.000***
	B3	0.88	0.691	16.234	0.054	0.000***
	B4	0.946	0.754	18.114	0.052	0.000***

anonymity	C1	1	0.784	-	-	-
	C2	0.664	0.458	10.172	0.065	0.000***
	C3	0.916	0.693	16.246	0.056	0.000***
	C4	0.975	0.778	18.735	0.052	0.000***
publicity	D1	1	0.83	-	-	-
	D2	0.882	0.736	18.509	0.048	0.000***
	D3	0.929	0.781	20.157	0.046	0.000***
	D4	0.886	0.777	19.99	0.044	0.000***
impact of cyber violence	R	1	0.838	-	-	-

Note: ***, **, * represent 1%, 5%, and 10% significance levels, respectively.

From Table 6: Based on the paired term Intent -> Power Imbalance, the significance p-value is 0.000***, presenting significance at the level, then the original hypothesis is rejected, therefore this path is valid and its impact coefficient is 0.952; based on the paired term Power Imbalance -> Anonymity, the significance p-value is 0.001***, presenting significance at the level, then the original hypothesis is rejected, therefore this path is valid and its impact coefficient is 0.383; based on the paired term Openness->Anonymity, with a significance p-value of 0.000***, presenting significance at the level, the original hypothesis is rejected, therefore this path is valid, and its impact coefficient is 0.616; based on the paired term Anonymity->Cyber Violence Impact, with a significance p-value of 0.000***, presenting significance at the level, the original hypothesis is rejected, therefore this path is valid, and its impact coefficient of 0.838.

Table 6. Table of model regression coefficients

Factor(latent variable)	→	Analytic terms (explicit variables)	Non-standardized coefficient	Standardized coefficient	standard error	Z	P
intent	→	power imbalance	1.032	0.952	0.063	16.439	0.000***
power imbalance	→	anonymity	0.389	0.383	0.117	3.323	0.001***
publicity	→	anonymity	0.588	0.616	0.111	5.278	0.000***
anonymity	→	impact of cyber violence	0.945	0.838	0.057	16.49	0.000***

Note: ***, **, * represent 1%, 5%, and 10% significance levels, respectively.

After data validation, it was proved that there is a significant positive correlation between anonymity and cyberviolence, while intention, power imbalance and openness act on anonymity in different ways, which ultimately leads to the negative consequences of cyberviolence. The sample of this study suggests that to reduce the frequency of cyber violence, it is necessary to reduce the degree to which the above four variables interact with each other. If the degree of correlation of the four can be reduced, the lower the frequency of cyber violence will be.

5   Conclusion

First, participants in cyber violence often attack and harm others out of malice, hatred, jealousy and other bad psychological motives. This mentality is often amplified in the cyber world, leading people to balance themselves by attacking others; second, cyber violence is often shared by a group of people, with a large number of abusers, while the victims are often too weak to fight back; third, the anonymity of the cyberspace makes it easier for people to hide their true identities, thus reducing self-restraint and moral responsibility; fourth, in the Internet , one person's aggressive behavior may quickly trigger the participation and response of more people, thus creating a collective act of violence and a vicious cycle. This public nature also makes it easier for online violence to be recorded and saved as a permanent record, causing long-term damage to the victim's reputation. In summary, the causes of cyberviolence include factors such as intent, power imbalance, anonymity and publicity. These factors interact with each other and together contribute to the occurrence of cyberviolence.

There are the existing problems in the governance of cyber violence. Firstly, anti-cyber violence legislation is an extremely complex systematic project, laws, systems and other formal norms and informal norms such as civilized Internet agreements, but also did not play a due role, most of the offenders have not been duly sanctioned and punished, "the law is not responsible for the masses" mentality prevailed, and the illegal behavior is unceasing [7]. **Then,** the consequences of cyber violence are often presented as damage to citizens' perstnal property safety, which has a wide and long-lasting impact. The consequences of such damage cannot be quantitatively assessed, and it is difficult for the parties concerned to apply for an appraisal of the damage to determine the compensation request. It is not clear whether the consequences of cyber violence, such as loss of job or suicide, can be categorized as consequences of cyber violence [8]. **Finally**, the quality of regulation of Internet platforms is often uneven, and there is a lack of preventive mechanisms for Internet violations. At the same time, the interactivity and openness of the Internet have greatly enhanced the possibilities for netizens to participate in the production and dissemination of information, and the high speed of information dissemination and the complexity and variety of channels have made it difficult for network platforms to carry out timely control, and the speed at which the control mechanism can play a role has lagged behind the fermentation of network public opinion and network violence [9]. **Also,** the network has a strong openness and inclusiveness, providing people with a new channel to express their opinions, and the general public has gained the right to speak and express themselves, which they can't have in real life [10]. They vent their dissatisfaction with the status quo in the virtual world, and it is easy for them to make extreme remarks, which leads to the formation of cyber-violence.

For the better management, the governance of network violence in the new media perspective cannot be accomplished by the power of one party, but requires the collaboration of many parties to cooperate with each other and collaborate in governance. **On national level,** Improving legislation on the prior regulation of cyberviolence, introducing special legislation on cyberviolence, and giving full play to the law's role in guiding and predicting netizens; establishing a program for assessing the consequences of cyberviolence, and categorizing cyberviolence by means of legislative techniques; and guiding the parties involved in seeking the right remedy when the victim seeks to have their rights remedied, and at the same time, gradually implementing the system of real names on the Internet to impose constraints on inappropriate words and

actions by netizens. **For Competent Authorities,** the Government should strengthen cooperation with network operators and establish a mechanism for classifying, collecting, processing and feeding back hot information, so that the public can obtain authoritative information in the first instance and improve their ability to identify rumors. Relevant departments and authorities can also join forces with public organizations and public welfare organizations to rationalize and improve the mechanisms for protecting and psychologically easing the people involved in cyberviolence, so as to minimize the harm caused by cyberviolence to the people involved. **For network operators,** with the introduction of the theory of the main responsibility of the platform, combined with the current trend of legislation shows that the right to governance is gradually sinking to the Internet platform enterprises, and the governance of cyberspace has also become the obligation of these "digital gatekeepers" and "network gatekeepers" [8]. Strengthen the monitoring of social software with high public activity and high impact, and timely capture hot information that may lead to cyber violence; increase the punishment of illegal accounts, and seriously hold accountable websites and platforms that fail to perform their duties; improve the reporting mechanism of netizens on cyber rumors and cyber violence, improve the rules of electronic evidence on the Internet, and build a technical identification model of cyber violence, so as to strengthen the protection of victims from the source [9]. For **network users.** when suffering from cyber violence, should calm down to deal with the problem, through legal channels to protect their legitimate rights and interests, timely to the public security organs for help; when in the position of bystanders, the need to distinguish between right and wrong, rational comments, strict adherence to the sense of law, not only to consciously safeguard the legitimate rights and interests of others in network interactions [10], not to participate in cyber bullying, cyber abuse and other violations of morality and the law, but also the courage to fight against cyber violations, the formation of a benign environment of network speech [11].

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