Legal Risk of Net Information Dissemination in Big Data Era

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Abstract. As the rapid development of the Internet and the wide application of big data technology, it has spawned a large number of network users. The free dissemination of various kinds of information has gained new development, but it has also given rise to many new conflicts and problems. This paper is mainly based on the current network information dissemination which has which has three characteristics: first, the information spreads highly effective and freely; second, the information is difficult to judge the authenticity; third, it is related to the netizens’ privacy. That explains the era of big data network information dissemination facing all kinds of legal risk, which involves the citizens' rights are violated, and the network crime is increasingly serious, legal issues, such as national information security threats, thus put forward to perfect the relevant legal system, strengthen government guide, suggest improving the social regulation.

Keywords: Big Data, Network Information Dissemination, the Legal Risks

1. Introduction
According to the 44th statistical report on Internet development in China, by June 2019, the number of netizens in China had reached 854 million, an increase of 1.6% compared with the end of 2019, and the rate of Internet penetration had reached 61.2%. Meanwhile, the scale of the telephone netizens is up to 847 million, the rate of surfing on the phone reaching 99.1% [1]. From that, it has been seen in recent years the development of the Internet in our country has a large number of network users. However, these users in the process of information dissemination and interaction, the formation of the complex information network transmission characteristics of the true and false information network intertwined together. If lack a scientific and effective data network information dissemination idea of rules and regulations, the information in the process of high frequency, multi-platform interactive, it will be easy to form a diversified, multi-level legal risk, thus disturbing social order, form a larger social instability.

2. Characteristics and legal risks of network information dissemination in the era of big data

2.1. Characteristics

2.1.1. Free and efficient communication. The Internet has brought a new way of communication. Almost all information resources on the Internet are open, and any individual or organization can
easily publish and receive information through the network. The majority of Internet users have the right to collect and release information. They can speak to the world, enjoy a high degree of free information dissemination right, and the network dissemination of information is open to everyone. At the same time, the information transmission and delivery time on the Internet is very short. For example, some we-media platforms represented by Microblog, WeChat, Tik Tok, etc. allow users to communicate and transmit information in seconds in the cyber space, which is faster and faster than face-to-face interaction. The development and application of the Internet and big data have changed the inherent mode of one-way dissemination of traditional media information and presented significant interactivity.

2.1.2. It is difficult to tell the truth from the false. In network communication, every netizen has a dual identity, both as the receiver of information, at the same time, may also become the transmitter of information. The transmission behaviour is always there, and the receiver of information can also process, modify, enlarge and recombine the network information, becoming the subject of information operation [3]. Therefore, in the process of information dissemination among different network users, some individuals, based on personal interest appeals and emotional expressions, subjectively tamper with the original information content and distort the original intention of information dissemination, thus causing distortion of information dissemination and loss of authenticity at the subjective level.

2.1.3. Online Users’ identity privacy. In the era of big data, network users publish and receive information in the virtual environment of the network, and the network provides them with an environment where they can fully open themselves. Most disseminators and receivers of network information conduct various activities in the network in an anonymous way. As a result, we can't accurately find the speakers’ identity information easily. It also gives the speaker protection at the same time, also make the lost to supervise, the speakers in the world through the media network platform unruliness, through the media accounts attacks on others, disturbing social audio-visual, achieving the goal of their improper [3].

2.2. The legal risks

2.2.1. Citizens' legal rights have been violated. With the advent of the era of big data, the violation of citizens' rights by network information happens from time to time, especially the violation of personal privacy and right of personal portrait becoming more and more serious. Stealing citizens' personal information and releasing citizens' personal information seriously violate citizens' legal rights. This shows that the network security problem in China is becoming more and more serious. The latest statistics of China Internet network information centre (CNNIC) on the occurrence of netizens' network security incidents are shown in table 1.

| Cyber security issues                          | Time (year/month) |
|------------------------------------------------|--------------------|
|                                                | December 2018     | June 2019           |
| Personal information disclosure                | 27.3%             | 24.0%               |
| Internet fraud                                 | 28.1%             | 21.5%               |
| Virus or Trojan horse in the device            | 14.5%             | 14.9%               |
| Account or password stolen                     | 17.7%             | 13.9%               |
| None of the above                              | 49.2%             | 55.6%               |

As can be seen from table 1, the proportion of Internet users who suffered from online fraud in the first half of 2019 decreased significantly compared with the end of 2018, with a decrease of 6.6 percentage points. The proportion of Internet users who suffered from account or password theft, personal information leakage and other network security problems also decreased. But overall, nearly
half of all netizens in China will encounter various network security problems while surfing the Internet in 2019, among which the most serious problem has always been the leak of personal information online.

2.2.2. Cybercrime is becoming more and more serious. In the context of the big data era in which diversified subjects are "connected to the network", bad network behaviours not only infringe on private rights, but also pose a threat to social public order. In particular, the increasing number of network crimes has caused a great negative impact on social public order. On November 19, 2019, China's Supreme People's Court held a big data network crime reports and typical cases of telecom network fraud crime news conference, released in the judicial big data project: cybercrime characteristics and trends of the statistics from 2016 to 2018, the national all levels of the court of first instance ruled on network crime on a total of more than 48000, there is an upward trend in case quantity, amount of 2017 cases with than the 32.58% rise in 2016, 2018 cases increased significantly, than a rise of 50.91% in 2017 [4], as shown in figure 1.

![Figure 1](image1.png)

**Figure 1.** Annual number of cybercrime cases from 2016 to 2018.

At the same time, in the network crime case, the defendant engaged in information transmission, computer services and software industry the most. From 2016 to 2018, the network crime cases mainly involved the defendants 17 types of industry, of which the defendant engaged in information transmission, computer services and software industry the most, occupied 37.21% of the total industry information records the defendant, followed by finance, manufacturing, accounted for 16.39% and 12.4% respectively, as shown in figure 2.

![Figure 2](image2.png)

**Figure 2.** Annual number of cybercrime cases from 2016 to 2018.
2.2.3. **National information security is under threat.** With the complex changes in the international situation, more and more criminals use "we media" platforms to spread false information and spread rumours on the Internet, fabricating various kinds of false information and use technical means to fabricate false pictures, audio and video documents to confuse the public [5]. The spread of this kind of false information not only causes the panic of the whole society and intensifies social antagonism, but also brings huge risks and harms to the overall national security of China. According to the latest statistics of China's national network security and vulnerability situation, in the first half of 2019, the National Internet Emergency Center (CNCERT) detected and coordinated the disposal of only 40,000 tampered websites in China, among which 222 government websites were tampered, as shown in table 2.

**Table 2.** The number of tampered government websites in China (unit: pcs).

| Date | January | February | march | April | May | June |
|------|---------|----------|-------|-------|-----|------|
| 2018 | 60      | 53       | 57    | 52    | 53  | 45   |
| 2019 | 71      | 71       | 65    | 85    | 55  | 23   |

Meanwhile, in the first half of 2019, 5,859 general-purpose security vulnerabilities were included in the China National Vulnerability Database (CNVD), a year-on-year decrease of 24.4%, among which 2,055 were high-risk vulnerabilities, a year-on-year decrease of 21.2%, as shown in table 3 and table 4.

**Table 3.** The number of information system security vulnerabilities included in the China National Vulnerability Database (CNVD) (unit: pcs).

| Date | January | February | march | April | May | June |
|------|---------|----------|-------|-------|-----|------|
| 2018 | 1397    | 824      | 1902  | 1130  | 1480| 1020 |
| 2019 | 1057    | 777      | 1132  | 881   | 1061| 952  |

**Table 4.** The number of high-risk vulnerabilities in information systems included in the China National Vulnerability Database (CNVD) (unit: pcs).

| Date | January | February | march | April | May | June |
|------|---------|----------|-------|-------|-----|------|
| 2018 | 479     | 279      | 598   | 374   | 525 | 353  |
| 2019 | 336     | 243      | 343   | 333   | 306 | 320  |

3. **Legal risk prevention strategy of network information dissemination in the era of big data**

3.1. *We will improve relevant legal systems*

In the face of increasingly large data for the development of network technology, the rapid development of the media platform, China should build scattered and unified legislation of mutual replenishment law guarantee system, because completely unified legislative model is difficult to deal with rapid changes in the variety of legal disputes, laws and regulations of the legislation system specification for large data network transmission still existing dislocation cycle risk [6]. Although the cost of decentralized legislation is high, which may cause conflicts between laws and regulations to some extent, its advantages are also relatively prominent, that is, it can provide norms for the dissemination and management of big data network in a short period of time. At the same time, it can also make an all-round law system. Except this, it should combine with the Cyber security Law of the People's Republic of China. By that, law rules will be built more systematically and completely, as a consequence, China will be governed by the law.

3.2. *We will strengthen the guiding role of the government*
The rise of the era of big data network brings new challenges to the supervision and guidance of government departments. No matter at the level of the central government or at all levels of local governments, special departments should be set up to deal with the possible risks of information dissemination in the online world and on we-media platforms. The network police and other forces at various places are scattered. When some high-profile incidents occur, the national specialized response departments can find the source and solve the problems in a more professional and systematic way. At the same time, in the whole process of network information dissemination, we can build the core of information dissemination dominated by government micro media, give full play to the role of accurate dissemination of mainstream ideological values, scientifically guide the dissemination of network users, and reduce the risk of network public opinion, so as to achieve the whole process of information dissemination control.

3.3. We will improve social oversight.
The public also plays an important part in the cyber space, which is conducive to guiding public opinion and maintaining social and national stability. For example, some stars, microblog influencer and well-known bloggers, are easy to be trusted by the public in daily life. They control the flow of network information, change the public attitude and play a decisive role in the process of information dissemination. Therefore, we can strengthen the cooperation between the government and these social mainstream groups, give full play to the role of gatekeepers, realize the effective management of network information through them, improve the intensity of social supervision, and realize the effective function of public opinion guidance.

4. Conclusion
In the era of rapid development of big data, the Internet is changing the way of life, interpersonal communication and even economic model of human society with surprising power. The network has built a new form of our society and a diversified and open network information dissemination environment. Network information dissemination plays an important role and has unique advantages in the construction of a harmonious society, but it also brings legal risks such as infringement of netizens' rights and prominent network information security problems. Therefore, we should not only have a deep understanding of the role of network information dissemination in promoting the development of social construction, but also actively take effective measures to give full play to the positive role of network information dissemination in the construction of a harmonious society through legal, technical, moral and other means.

References
[1] China Internet Network Information Center (CNNIC). The 44th statistical report on Internet development in China[EB/OL].[2019-08-30][2020-2-23].http://www.cac.gov.cn/2019-08/30/c_1124938750.htm(in Chinese)
[2] Adil Imad Eddine Hosni, Kan Li, Sadique Ahmad. Analysis of the impact of online social networks addiction on the propagation of rumors[J]. Physica A: Statistical Mechanics and its Applications, 2020, 542.
[3] Zhou shengqiong. Network information communication risks and prevention strategies in the era of micro-media [J]. Journal of journalism and research, 2008,9 (20) : 173-174. (in Chinese)
[4] China Academy of Judicial Big Data. Characteristics and Trends of Cyber Crimes in the Special Report on Judicial Big Data (2016.1-2018.12)[EB/OL].[2019-11-22][2020-2-23]. http://www.court.gov.cn/fabu-xiangqing-202061.html(in Chinese)
[5] Y. I. Chmyr. Problems of providing information security in the system of public administration[J]. Aspekti Publičnogo Upravlînnâ, 2018, 6(9):16-22.
[6] Li heng. An analysis of the regulatory path of information dissemination on we media platforms from the perspective of rule of law [J]. Legal expo, 2019, (27) : 236. (in Chinese)
[7] Ding Yangxia, Li Yi. A Brief Analysis on the Dilemma and Countermeasures of Information Network Transmission Right Protection Under Big Data[J]. Economic research guide, 2019, (30): 192-193. (in Chinese)

[8] Santhoshkumar Srinivasan, L. D. Dhinessh Babu. Interest aware influential information disseminators in social networks[J]. SN Applied Sciences, 2019, 1(11): 1-14.