Research on Construction of Evaluation Index System of Internet Public Sentiment for Chinese University

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Abstract—**With the development of information technology and the popularity of new media in Colleges and universities, the network has a profound impact on the way of thinking, ideas, interpersonal communication and learning life of college students. The number of college students in China is about 25 million, and their comments on the Internet constitute the network of college students' public sentiment. According to the characteristics of the Internet public sentiment in colleges and universities, this paper puts forward a new index system of Internet public sentiment by means of analytic hierarchy process and expert group judgment method.**

Keywords—internet; public sentiment; university; index system

I. INTRODUCTION

Internet public opinion refers to a variety of different attitudes, emotions and opinions expressed and transmitted through the Internet. And the college Internet public sentiment as an important part of Internet public sentiment, by teachers and students in Colleges and universities spread on the Internet the most public of reality of all kinds of social phenomena, and can have an impact on the process, open, consistent, with authority and tendency of belief, attitude, opinion and emotion in general. Its behavior is the main body of teachers and students, the carrier is the entire Internet, and not just confined to the campus network[1]. With the arrival of the information society and the Internet, to strengthen the guidance of Internet public sentiment, to build a harmonious campus network cultural environment, to become a new important task.

Internet public sentiment management in Colleges and universities is an important position of Ideological and political education. Currently, the Internet has gradually established the dominant position of the social information communication, Blog, micro Blog, BBS, QQ, micro channel and other digital platforms become important interactive platform and the carrier of Ideological and political education also from the plane becomes three-dimensional, from static to dynamic[2][3]. Contains the college Internet public sentiment, most can directly or indirectly reflect the students may concern or is concerned about the focus and hot issue, to be judged these public opinion, help students to understand the state of mind, and then analyze the negative public opinion, to 2 to grasp the essence of the problem. At the same time, purify the network environment on the network through the play positive Internet public sentiment guidance effect to users, to make up for the deficiency of traditional ideological and political education work, the better to play the leading role of Ideological and political education, to help students establish the correct life view, world view, value view.

Internet public sentiment management in Colleges and universities are an important part of campus culture construction. With the rapid progress of the network technology, the construction of the network culture influence in the construction of campus culture has become larger, as a basic part of the construction of campus network culture, the importance of Internet public sentiment of the judge and management is also becoming increasingly prominent[4][5]. With the rise of network community, university culture from tangible stage to virtual space transfer, such as the Baidu Post Bar, BBS, community forums, university network and so on. These are in a certain extent, reflects the health of the university culture[6].

At the same time, generally speaking, active university Internet public sentiment is university culture essentially a reflection of, can promote positive energy networks, spread advanced culture, leading the socialist orientation of culture value, and the negative Internet public sentiment will of college students ideals and beliefs, values and way of life impact, and even the formation of wrong conclusions and understanding[7][8]. Therefore, strengthen the construction of campus culture, we must actively use network carrier, play a positive role in the college Internet public sentiment, continue

to expand and enrich the content of campus culture activities, to inject new vitality into the spread of campus culture.

Chinese college students use the Internet as access to information and an important channel of communication platform, the network has become the university teachers and students to reflect the public opinion and to obtain information on the most important window, brought into closer contact between University and society, colleges and universities has become more and more complex[9][10][11]. This paper collects the information of Internet public sentiment, then clustering and classification, through a combination of qualitative and quantitative methods proposed a college Internet public sentiment evaluation index system, using the index system of computing Internet public sentiment assessment index, provide public opinion early-warning and decision support for management.

II. BASIC PRINCIPLES OF EVALUATION INDEX

The evaluation index system of Internet public sentiment security in Colleges and universities is an interrelated system, which adopts the systematic method to study deeply, to refine the complex system, and to make the research problem relatively simple[12]. The network security of public opinion on the evaluation index system of the research process is a combination of qualitative and quantitative research, to reflect the intention of college students information according to the relevance of public opinion topic selection and classification, grasp the decision layers are concerned with public opinion topic and college students are concerned about public opinion topic and screened to reflect and affect the security of public opinion on the Internet the important factor and source, for the follow-up from the technology and the operating system to achieve public opinion information screening, mining, clustering and classification, to facilitate[13].

On the basis of the existing research, with quantitative characterization of the network objective concept reflects the college Internet public sentiment that describe the subjective concept, the study based on the college Internet public sentiment evolution, the college Internet public sentiment different thematic information for safety evaluation of, using scientific methods to determine the index and weight, construct the public opinion of network security evaluation index system[14].

Set of evaluation indicators is accurate and reasonable evaluation index system can achieve the expected effect, in order to ensure that the index can reflect accurately the connotation of university public opinion strength, dimensions and elements must be in index selection process and follow the three principles:

Effectiveness principle
Indicators must clear reaction of university public opinion strength the multidimensional index of reliability, heat, to reliability, validity, and each dimension and subordinate to the second grade, third grade indexes for the evaluation of public opinion strength, found potential threat, the choice of coping strategies must have practical guiding significance and reference value.

Principle of accuracy
Indicators must be able to clearly and accurately reveal all kinds of factors affecting the intensity of public opinion, to take a qualitative or quantitative analysis of the method to evaluate, to ensure that the evaluation results of scientific and rational. At the same time, the data sources of each index must be reliable, and the weight of the index and the score setting must have a reasonable and stable standard.

Systematic principle
The intensity of public opinion in Colleges and universities is influenced by the reliability, the heat, the direction, the validity and the subordinate indicators, and there is a mutual influence and mutual restraint between the various indicators. In the evaluation of a single index, we must consider the relationship between the index and other indicators, and its status and influence in the whole evaluation system. At the same time, we should also consider the actual situation of different colleges and universities, so as to make a comprehensive evaluation of the system.

III. EVALUATION INDEX SYSTEM OF INTERNET PUBLIC SENTIMENT

The evaluation index system of Internet public sentiment security in Colleges and universities is an interrelated system, which adopts the systematic method to study deeply, to refine the complex system, and to make the research problem relatively simple.

This paper uses quantitative research methods to classify the Internet public sentiment in colleges and universities, using the scientific method to determine the indicators and weights, and construct the Internet public sentiment security evaluation index system.
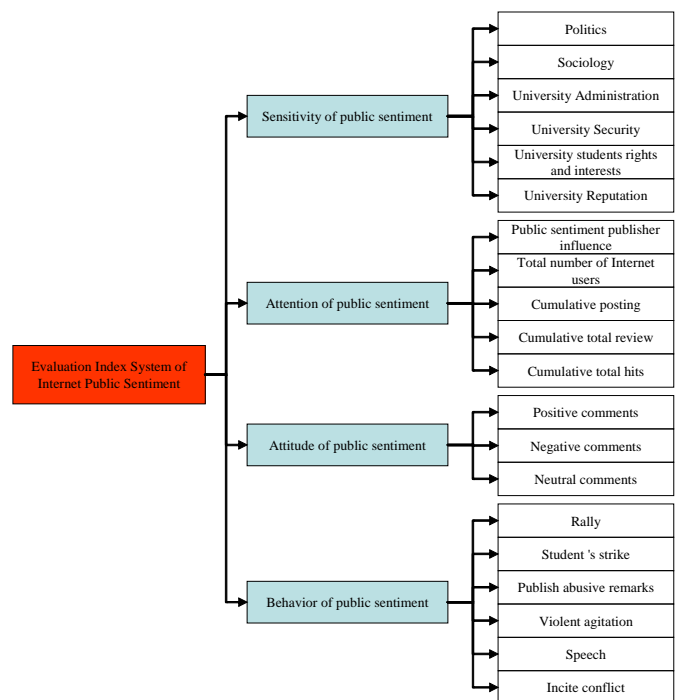

Fig. 1.   Evaluation index system of inter public sentiment

IV. Weight of Evaluation Index of Public Sentiment

Because all levels of indicators for the influence of the intensity of public opinion is different, and therefore need to develop indicators for the weight. This paper through the form of questionnaire survey, to the public opinion of the experts and government officials, corporate executives questionnaires and on the questionnaire data were consistency checking, so as to determine the weight of each index of the original data.

This paper use the data obtained from the questionnaire to construct comparison judgment matrix. If the score rate of a target is higher, then the impact of this index is higher, as shown in Table 1.

TABLE I. Standard Degree of the Judgment Matrix

Description	Value
Two indicators compared to the same degree of importance	1
Two indicators compared to an indicator is a little more important than another	3
Two indicators compared to an indicator is significantly more important than another	5
Two indicators compared to an indicator is very important than another	7
Two indicators, an indicator than the other indicators of extreme importance	9

Criterion layer includes sensitivity of public sentiment, attention of public sentiment, attitude of public sentiment and behavior of public sentiment, the score as shown in Table 2.

TABLE II. Score of Criterion Layer

Index	Score	Weight
Sensitivity of public sentiment	26	0.245
Attention of public sentiment	15	0.093
Attitude of public sentiment	23	0.154
Behavior of public sentiment	36	0.508

Through the analytic hierarchy process, the weight of the index factors and the weight of the index factors are determined, as shown in Table 3. Sort level is aimed at the top, along the hierarchy top-down computed layer by layer can be calculated the lowest layer to the relative importance of the top index ranking values of that sort level. Total sort W is equal to the weight of the index weight of this layer W_{ij} times with the corresponding upper level index weight W_i.

By hierarchical analysis method, determines the weight of criterion layer index and weight of index layer index factors, finally through sort level indicators to determine the final weights, and then determine the college network public opinion events of the warning level.

TABLE III. Weight of evaluation index system of Internet public sentiment

Target layer	First layer index	Weight	Second layer index	Weight
Evaluation Index System of Internet Public Sentiment	Sensitivity of public sentiment	0.245	Politics	0.235
			Sociology	0.045
			University Administration	0.347
			University Security	0.115
			University students rights and interests	0.171
			University Reputation	0.087
	Attention of public sentiment	0.093	Public sentiment publisher influence	0.142
			Total number of Internet users	0.193
			Cumulative posting	0.453
			Cumulative total review	0.105
			Cumulative total hits	0.107
	Attitude of public sentiment	0.154	Positive comments	0.265
			Negative comments	0.503
			Neutral comments	0.232
	Behavior of public sentiment	0.508	Rally	0.082
			Student 's strike	0.292
			Publish abusive remarks	0.253
			Violent agitation	0.075
			Speech	0.103
			Incite conflict	0.195

V. Discussion and Future Work

This paper discusses the research background of the evaluation index system of Internet public sentiment in colleges and universities, and puts forward a new index system of Internet public sentiment. On the basis of relevant research results, this paper selects the index of safety evaluation of the Internet public sentiment in colleges and universities. This study is just the research on early warning of Internet public sentiment, and the follow-up study will be combined with early warning system construction and implementation, combination of theory research and practice, and ultimately the evaluation index system of Internet public sentiment in colleges and universities.

The evaluation index system Internet of public sentiment proposed in this paper can help the Internet public sentiment staff to keep dynamic tracking of real-time information, which can focus on the Internet public sentiment in the key areas. The evaluation index system of Internet public sentiment has given

the compute model of the Internet public sentiment index in colleges and universities. However, it needs further research because of the lack of a large number of statistical data. So the future work of this paper is to collect public opinion data, improve and perfect the evaluation index system of the Internet public sentiment in colleges and universities.

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