A Review of TV media marketing
Integrated 4I principle of Internet based on big data

Li Mengshan *, Tan Guangwen, Chen Bingsheng, Guan Lixin and Wu Yan

College of Physics and Electronic Information, Gannan Normal University, Ganzhou, 341000, Jiangxi, China

ABSTRACT
The advent of the era of big data has brought many revolutionary changes to the human society. Whether a kind of media can actively meet and adapt to the challenges of the era of big data has become the key factor to determine a media to take the lead in the media competition in the future. From the perspective of marketing, the role of TV media has changed from an effective marketing channel to a subject with urgent marketing needs. It has become an urgent task to explore how to effectively apply big data technology to TV media marketing. In order to focus and deeply discuss the possibility of realizing marketing innovation of TV media in the era of big data, and explore the effective path of realization. This paper selects the 4I principles of integrated network marketing (Interesting principles, Interests principles, Interaction principles and Individuality principles) as the perspective and analyzes the challenges and opportunities brought to TV media by the era of big data. From the four aspects of 4I principle, this paper discusses, analyzes and studies the TV media marketing innovation in the era of big data, and tries to get a complete TV media integrated marketing system in the era of big data.

Key words: TV media; Integrated marketing; Big data; 4I principle

I. THE INTRODUCTION
The influence of digital technology on human society is deepening, and the development of communication technology alone has brought unimaginable changes to the global economy and culture in just a few decades. In recent years, the Internet of Things, mobile Internet and other new technological forms are pushing human production and life to a new state, and people's habits of thinking, living and information use will undergo new changes. Especially with the popularity of cloud computing, which is called another revolutionary technological change after the Internet, the degree of intelligence of human society will be greatly improved, and the "information-age" will truly become a reality and truly penetrate into every corner of human life [1-3].

Due to the prominent influence of massive data on human society and the application of advanced data processing methods, "big data" analysis has been applied to practical activities in some industries and fields, and it is more effective and scientific than traditional experience methods, which has aroused worldwide attention and learning. The US government began to formulate a series of policies and measures to promote the development of big data from the national strategic level. Amazon and other well-known enterprises began to use big data technology to improve their own production processes. New media companies also used big data in the fields of audience segmentation, customer relationship management, advertising operation and so on [4-6].

The concept of big data has begun to be recognized around the world. More and more countries have begun to take measures to actively deploy big data applications and strive to seize the new development opportunities presented by the era. These significant and rapid changes have emerged after long-term accumulation, bringing changes in the way of thinking, production and life to the world, which is also called "the first year of big data". The role of communication media in the era of big data will be more prominent. Media as a communication bridge of the human, in today's mobile, social, intelligent has become indispensable "companion" of people life, people through the media use continues to generate huge amounts of data, the data will become the important resources in the era of big data, media and communication of all types of businesses
and users at the same time. On the basis of data analysis, businesses and users can establish in-depth, sustainable and stable interactive relations through media. Therefore, TV, as a traditional media, in the era of big data, what kind of development opportunities can be obtained and what measures should be taken to achieve innovative development become the key to determine whether it can win the competition of future media.

II. RESEARCH STATUS

(1) Research on the influence of big data on marketing activities and its strategies

The impact of big data on business is a key point, which has been discussed by many researchers in different industries, including finance, medical care and so on. However, most of them are problem-oriented studies of industry practitioners, and their academic nature needs to be strengthened. The "marketing value" of data can also be gradually highlighted under the background of big data technology application and market progress. The fundamental feature of big data is the mirror world expressed through data characteristics. Massive, diversified and high-speed are its three most important features, and constitute the powerful ability of big data to accurately reflect the real world, which reflects the extremely high research value, can be developed into people's marketing campaigns to improve competitiveness.

It can be seen that both academia and the industry have fully realized the impact and change of big data on marketing activities, and have a sober understanding of how to deal with this new situation. Moreover, some scholars have also made academic speculations on it from a theoretical height. However, the application of big data in marketing activities is still in its infancy, and it still needs long-term practice and exploration to effectively apply and promote it on a large scale. Therefore, we need to have a clear understanding of the problems that may occur in this process[7-10].

(2) Research on the impact of big data on the media industry and the media industry's coping strategies

Media is an industry with a concentrated amount of data, especially all kinds of new media developed based on digital technology, which has accumulated massive user and information data and has the basic conditions for the application and promotion of big data. In addition, data analysis has been applied and playing a role in the field of media. Big data technology has brought different challenges and opportunities to different types of media. How to achieve innovative development in the era of big data has become a hot topic in the media field. Data will become the "rich mine" and core resource of news. At the same time, it is pointed out that big data is not just a concept, but a description of a social state. The era of big data is a challenge to everyone. As the forefront industry of information transmission, the news media industry is facing obvious impacts and challenges.

With the deepening of research, more and more researchers have made more concrete reflections on the above issues from the perspective of different media development needs. Big data technology can penetrate into the core of news production, further enhance the value of audience feedback, and expand the breadth and depth of user analysis. Combine big data with newspapers and publications, TV media, Internet new media, advertising and other specific media types and businesses, analyze the relationship between each other, changes, trends, innovation methods and so on. To sum up, part of the research results focusing on newspapers and publishing industry are to discuss how traditional media respond to the challenges of the big data era, and TV media is also a key point, and the research results are abundant. In addition to traditional media, new media also has abundant research achievements in the application of big data technology, because new media has inherent advantages in the application of big data technology compared with traditional media[11-14].

(3) Study the influence of big data on TV media and its countermeasures.

Big data of TV media industry also bring a great shock, many scholars and practitioners have to reflect on how the TV media in the fierce competition with the new media in dealing with the challenges posed by big data at the same time, because of the TV media industry has both the development of traditional business and the innovation of the new media sector, so in the big data in the study of coping strategies also reflects a certain diversity. Firstly, some researchers think about the development direction of TV media and the innovation of traditional TV media business from the perspective of big data. TV media still accounts for the largest proportion, the development trend of Internet slows down, mobile Internet grows rapidly, and the trend of advertising is shifting. It points out that in the era of big data, the audience rating of authoritative TV media is more advantageous to a certain extent, but it also shows that TV really needs to transform. Secondly, some researchers focus on the research of big data technology development on TV evaluation, audience rating survey and audience relationship, which has practical significance for improving the efficiency of TV communication. Again, TV media and new media competition has been going on for many years, the academic research results are very rich also, TV media
also explored a lot of in the development of new media platforms to operate innovation path, in the era of big data after arrival, researchers also began to examine the innovation of TV media in the field of new media from this perspective, and many insightful results have been achieved. Big data promotes the development of smart TV industry and realizes the traction of consumer demand. It also analyzes the profit model of smart TV industry by using data mining method, and focuses on the green data center to support the sustainable development of smart TV information consumption, which has strong guiding significance[15, 16].

(4) Research on TV media marketing activities

First of all, realize the importance of marketing to the development of TV media, discuss how to deal with the market, innovative marketing strategy research. The pattern of buyer's market in Chinese TV industry has been formed, and the market competition is increasingly fierce. Under the situation of intensified internal and external competition at the same time, the decision makers, operators and academic circles have to reflect on and improve their business philosophy, and strengthen marketing activities is an inevitable choice. TV should set up customer orientation, do detailed and sufficient market research, and achieve the unity of audience rating and social benefits. Secondly, it examines TV marketing activities from the perspective of different marketing theories and methods. The TV industry belongs to the experience industry. The current situation of fierce competition in the TV industry and the change of audience's viewing behavior demand decide that the TV industry should implement the experience marketing strategy to obtain new development space. The important characteristic of TV media operation is to fundamentally break the original advertising mode, develop event marketing through media activities with careful planning, and then build an industrial chain, so as to achieve the purpose of TV content innovation and advertising share increase[17, 18].

III. ANALYSIS OF THE SITUATION

(1) the main characteristics of the era of big data and its profound impact on society.

"Big data” is a very new topic for the whole world, and all walks of life have not formed an inherent overall development model, so is TV media. First of all, it is necessary to master a large number of research materials and cutting-edge trends, analyze the main characteristics of the big data era, master the ins and outs of the development of the big data era, and briefly sort out the generation and development process of "big data". It also briefly analyzes the policies, market environment, external opportunities and competition, and internal advantages and disadvantages faced by the media industry in the era of big data, and makes a forward-looking study of the problems that TV media will encounter in the future development process, laying a foundation for the exploration of the development of TV media marketing.

(2) Summarize the experience of big data development in developed countries and analyze the efforts of new media.

Developed countries have a strong technical force, and there have been many successful cases in the application of big data. Amazon, Microsoft, Google and many other well-known companies have made a lot of beneficial exploration in the application of big data technology and new media marketing, and achieved fruitful results. From the perspective of communication mode, development trend and audience acceptance, in-depth analysis of the difficulties faced in the abandonment of TV media and new media is also conducive to find out the bottleneck of TV media development, tap its own advantageous resources and opportunities, find out the breakthrough point and path of TV media marketing, and explore the effective way of win-win cooperation between TV media and new media.

(3) The sorting and research of TV media marketing methods.

In the era of traditional media, TV media has a media influence unmatched by other media, and it is also the preferred channel for many businesses to carry out promotion and marketing. However, after the rise of new media, the "dominance" of TV media has been weakened, and the content competition within TV media has also shown an unprecedented fierce state. In this process, TV media has tried many types of marketing methods and accumulated rich experience. The combing of TV media marketing methods can find the problems existing in the current TV media marketing practice. Through the comparison with new media marketing methods, it can also deeply understand the advantages and disadvantages of TV media marketing, and lay a foundation for exploring how to combine big data technology with TV media marketing.

(4) How to apply big data marketing to TV media.

First of all, it analyzes the possibility of TV media applying big data marketing. Based on the research of TV media marketing methods and big data marketing characteristics, it seeks the possibility of effective combination of the two. The second is the exploration of big data marketing mode of TV media, the present TV media through many innovative explorations has overcome the limitations of the past.
one-way transmission and presents the whole media everything development situation, the preliminary with the application of large data marketing conditions, but how can you make big data play a role in the TV media marketing, they require a large amount of exploration.

(5) The influence brought by the innovation of big data marketing of TV media.

Media is an important part of human life. The change of media communication mode will have an impact on people's living habits and even thinking mode. Compared with the traditional marketing mode, big data marketing has "revolutionary" changes. It can not only become an effective promoter of "product information", but also a shaper of the “information environment” of the audience. Therefore, TV media data marketing is not restricted to the category of TV development, media competition, but with the audience is closely related to the shape growth, culture, social benefits and so on, so for the effects of TV media marketing data need to be thinking and analysis from multiple angles, to fully understanding the TV media marketing data, and then the quantitative measures effectively. So that it can play a positive role in the development of television media and social progress.

(6) Discuss the big data marketing strategy of specific TV media program types.

Because the application of big data in the production and communication of TV media is still in a relatively primary stage, and the industry has not yet formed a mature model or method, the research in this paper focuses on macro rational analysis on the whole, while specific case analysis and empirical research are relatively weak. However, this is an indispensable part of the research ideas of this paper, so in the writing, it is also necessary to analyze various practical cases of TV media's application of big data marketing, and to think about this problem in the discussion of different issues[19-22].

IV. TV MEDIA MARKETING BASED ON 4I PRINCIPLE

In order to have a more concentrated and in-depth discussion on the problems and possibilities of TV media realizing marketing innovation in the era of big data and explore its effective path, the principle of integrated network marketing is selected as the research perspective. On the basis of analyzing the challenges and opportunities brought by the era of big data to TV media. The innovation of TV media marketing in the era of big data is analyzed from four aspects: interest principle, interest principle, interaction principle and personality principle. The research ideas are summarized in Figure 1.

Figure 1 Research ideas of TV media marketing based on the 4I principle

(1) TV media marketing innovation based on interesting principle.

This paper focuses on the marketing innovation of TV media based on the interesting principle in the era of big data, excavates the problems encountered in the process of giving full play to the traditional interest advantages of TV media under the background of big data, and then quickly and accurately identify the “interest-points” with the help of big data technology, scientifically form the network integrated marketing strategy, timely monitor the marketing effect. This paper demonstrates the possibility of TV media marketing innovation based on the interesting principle in the era of big data, and describes the process of TV media big data marketing based on the interesting principle[23-25].

(2) TV media marketing innovation based on interest principle.

In the discussion based on the interest principle, this paper analyzes the problems encountered by TV media in the process of network integrated marketing based on the interest principle, and then demonstrates the possibility of TV realizing marketing innovation based on the interest principle in the era of big data from different angles, such as mining the interest correlation between different subjects, mining the correlation between different interest dimensions of the audience, simplifying marketing means, and accurately positioning the marketing scope and objectives. Explore new market and marketing space, track the development of audience interests and other aspects to explore the path of marketing innovation, and finally interpret the
characteristics of TV media marketing innovation[26, 27].

(3) TV media marketing innovation based on interactive principle

In the discussion based on the interactive principle, understand the evolution process of the interactive form in the field of TV media marketing, understand the promoting effect of the interactive principle on TV marketing from different stages, and in view of the trends and problems reflected in the network integrated marketing of TV media based on the interactive principle, from tapping the interactive potential of the audience, improving the utilization efficiency of interactive ways, expanding the interactive space and other aspects to explore the marketing innovation path of TV media with the help of big data technology.

(4) TV media marketing innovation based on personality principle

In the discussion based on personality principle, the scope of personality principle in TV media marketing activities is defined, its role is interpreted from two aspects of marketing subject and marketing object, focusing on the marketing innovation made by TV media based on personality principle in the era of big data. Combined with the misunderstanding existing in the process of TV media network integrated marketing, the path of marketing innovation is analyzed from four aspects.

(5) Integrated marketing system of TV media in the era of big data

Based on interesting, interest, interactive, personality four principles for big data era TV media marketing innovation, on the basis of the analysis of the TV media application of big data technology combined with the present situation and development stage, aiming at some problems in the practice and development requirements, discusses how to build big data era TV media integrated marketing system[28, 29].

V. ACKNOWLEDGMENTS

The authors gratefully acknowledge the support from the science and technology research project of the education department of Jiangxi province (Grant Numbers: GJJ180773, GJJ180754) and the Jiangxi culture and art science planning project “YG2017213, Research on TV media marketing based on 4I principle of network integrated marketing under the background of big data”.

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