

Analysis of the user behavior of Social Media in big Environment

Sixian Niu

School of Information Engineering, Baise University, Baise, Guangxi, 533000, China

Keywords: Big data, environment, social media, users, behavior analysis

Abstract: In summary of the characteristics of social media and social media environment, on the basis of user behavior characteristics, select the domestic rapid development in recent years, two of the most influential social media platform, twitter and WeChat, from the user groups, information services, information dissemination way, the case analysis of four aspects carries on the comparative analysis, the micro blogging and WeChat has carried on the multidimensional summary the characteristics of the two platforms. Then adopt the method of questionnaire to the micro blogging and WeChat users were investigated, from the user's basic characteristics, usage, information behavior characteristics, influence factors and user information behavior on weibo and WeChat platform cognition five parts data investigation. Then described the investigation questionnaire data statistics and factor analysis, summed up the micro blogging and WeChat two main platform users information behavior characteristics, influence factors and user's perception of two platforms and preferences. Finally, the analysis results and influencing factors of information behavior are used to construct the model of influencing factors of user information behavior in social media marketing.

1. Introduction

The development of social media is the result of technological progress and the result of user demand and market demand. The production of social media marketing is the operation of commercial capital and the natural selection of market subjects. We live in a relationship society, social media marketing in the big data era value demands can only be obtained through the "relationship" of high contribution value. The relation of socialization to data is the relation of multiplier. Data value \times socialization relationship = social media influence. The benefit distribution of big data era is determined by the relationship strength, strong relationship brings trust, weak relationship brings information transmission, and relationship is equal to commercial profit. All media content production by media monopoly appeared as stated earlier media is the role of the "big trumpet" default, the effect of the transmission has a "speaker" decision, unless the user sedulous boycott, accepted the media transmit information between narratives. So the TV media in the era of "container", "television", "network dependent disease" of the Internet era of extreme phenomenon, user behavior and thoughts are media by the nose. Under the new media environment, great changes have taken place in media landscape is, user participation in content production, media and the interaction between the user, the medium of status became the default "friend", media and relationships between users, "junior partner" and "difficult" user events rarely, in 2011, the news of the world, because of the scandal and closure is a typical case. In the era of big data, media content production mechanism has changed dramatically, due to the extensive use of social media and social networking, many of the general public can easily close to the media, have their own communication information channel, previously the exclusive media practitioners work widely amateur. In the context of media resources is no longer scarce, information dissemination of export more and more, especially the social media such as blogs, video blog, blog, but also broaden the channels for people to talk.

In the era of big data, interaction is the foundation of social media and the core of thought and technological progress. Media as a medium of information transfer, absorb each other in the process of media to interact with the user's information, mutual influence, and UGC has an important role in the media content production, even among the media field, the medium entity (medium mobile

terminal and mobile Internet station) from the media. Media content (information) is transmitted from the media to the cloud to form big data, and the series relationship network is set up.

Scientific Computing	Examples	Number of Users	Response Time	Data Scale	Reliability	Accuracy
Finance	Bioinformatics	Small	Slow	TB	Moderate	Very High
Scientific Computing	High-frequency Trading	Large	Very Fast	GB	Very High	Very High
Social Network	Facebook	Very Large	Fast	PB	High	High
Mobile Data	Mobile Phone	Very Large	Fast	TB	High	High
Internet of Things	Sensor Network	Large	Fast	TB	High	High
Web Data	News Website	Very Large	Fast	PB	High	High
Multimedia	Video Site	Very Large	Fast	PB	High	Moderate

Figure 1 comparison of typical large data applications

Big data drives development in many areas and will bring greater development opportunities in many areas. Policy in 2012, the White House office of “Big Data Research and Development program (“Big Data Research and Development Initiative, hope to speed up the Big Data technology Research and Development and training of Big Data, including computing, engineering network infrastructure in neuroscience, citation Data, cancer genome atlas, cardiovascular Research grid, intelligence community, multi-scale anomaly detection, high performance storage system, one hundred billion Data analysis plan, the next generation network support tools and other dozens of countries project, as well as the U.S. government, colleges and universities, enterprises and the task of a surplus profit organization and cooperation.

Parameter	Value	Default	Range
CLUSTER_COUNT	0	10	[0, ...)
CLUSTER_SEED	0		[0, ...)
CLUSTERING_METHOD		1	1, 2, 3, 4
MAXIMUM_INPUT_ATTRIBUTES		255	[0, 65535]
MAXIMUM_STATES		100	0, [2, 65535]
MINIMUM_SUPPORT		1	(0, ...)
MODELLING_CARDINALITY		10	[1, 50]
SAMPLE_SIZE		50000	0, [100, ...)
STOPPING_TOLERANCE		10	(0, ...)

Figure 2 potential benefits of big data in some areas

Comprehensive McKinsey global institute for the study of analysis (figure 2), visible future gains were greatest in the era of big data is associated with information, computers, electronic products industry, the industry has achieved great economic growth, and the growth is mostly in the use of big data. These industries have huge data (Internet companies collect the behavioral information of a large number of online users) and there will be more room for innovation in the future. Then there are the banking and government agencies, which have great potential to grow as they are broken down with the use of user data. Once again, infrastructure construction, education, art and entertainment industries, which are difficult to break because of the larger policy system, are slow to grow. Finally, retail, health care, life supplies and the food industry, which use big data to achieve a small increase in output. According to the McKinsey global institute estimates, big data will bring us healthcare services revenue of \$300 billion a year, brings to the European public administration 2_500 billion euros/year for the global personal location data provider to bring an annual income of more than 100 billion, bring us retail the net profit growth of 60% ~ 70% above,

manufacturing product development at the same time, the assembly cost will be reduced by 50% ~ 70%. Information industry and the network media related industry is the main industry, using big data value-added so combined with medium and big data industry has huge potential in the future, it also like the McKinsey global institute report name, big data is the “next the forefront of innovation, competition and productivity”.

2. Typical media features of social media

The typical media feature of social media is sharing and sharing information that users are paying attention to. Defining social media from media attributes can be divided into two categories: “site” and “tool”. Although both have information interaction function, there is a difference in content production. C Website “site”) are all forms of network media to achieve, content is given priority to with push media, the audience is passive to receive information, social media sites are interactive, but a negative interaction, the form of interaction; And “tool” (mobile client) is based on the SNS (Social Network System) development of new form, give priority to with user generated content, information is generated by the user interaction, audience distribution links in the Network, any organizations, institutions and individuals can through this channel to generate content, breaking the traditional content the privilege of production organization, the formation of this way of Social communication, will greatly change the entire media ecological System. Difference between the most direct way is to see who is in the process of information dissemination of information output, the largest social media site itself output large amount of information, such as video sharing network most of the content of the video from the web site to buy the copyright, the cooperation term network are mostly collected from the network text, most of the content delivery network from the content of the site itself and quotes, etc.; Social media tool user output is large, such as weibo, WeChat public account, etc. In addition, the overlap part of the overlapping parts constitute the social media sites and social media tools also have a “platform”, the platform between the two functions in one, in content generation and interaction at the same time, social media platform. The profitability of search engine marketing in China has continued to grow rapidly in recent years, and the utilization rate of Internet users has remained high, replacing the traditional TV marketing status. At the same time, because of the increase in mobile phone performance price and flow rates, mobile phones holding rate and the search function to improve utilization rate, mobile search application has become the second to the instant communication mobile applications. Due to its mobile features, mobile phone search is more diversified, with not only traditional integrated search and vertical search, but also the application of various search functions. At the same time, mobile phone search input also becomes diversified, not only the text image input, but also voice, photo, scan and other input methods. Under the background of big data search behavior, will get more accurate analysis, mobile search become the main battlefield of search engine marketing, makes search engine marketing fragmentation, diversity and tool, content related to search and intelligent search results will be the future trend of search engine marketing. These changes also drive search engine marketing activities to fragmentation and diversification, which also provide an opportunity for social media marketing. At present, has been to combine the social media and search engine and search engine, namely a social media search engines.

Table 1 Sample Comparison

Testing sample	output	expected	Relative deviation
1	0.53	0.53	0.00
2	0.71	0.72	0.01
3	0.64	0.66	0.02
4	0.63	0.62	0.01
5	0.73	0.72	0.01
6	0.66	0.65	0.01
7	0.82	0.83	0.01
8	0.92	0.92	0.00
9	0.90	0.91	0.01

Social media marketing in our country is in a boom, talked about the importance of social media at the same time, the vision must be turned to social media and user behavior changes, grasp the users to create and define the brand marketing, creative and integrated marketing, real time hot topics, social customer relationship management of the development trend of social media marketing. Social media in the era of big data is flashing. The entire social media platform is developing in depth, and media socialization trend of the “social” wave, make more and more traditional e-commerce enterprises realize the importance of cut into the multiple social media platforms. For example, alibaba bought sina weibo shares and sina weibo opened up taobao, etc. More and more users are using mobile social media tools, and social media is further highlighted in social media. Big data applications create new business opportunities, social media marketing through the analysis of large social media data, a comprehensive grasp the user consumption information, accurate positioning for the enterprise target customer is possible. “Social big data gave rise to the traditional enterprise service transformation, many enterprises through the analysis of socialization big data to evaluate the enterprise reputation, and according to the user of the product evaluation to improve the product function and promote products and services, such as Zara is about 10% by this method makes the sales promotion. User behavior in the era of big data is also quietly changing. With the function of social media types of segmentation, audience share information content is changing, from the traditional Internet text to share, to pictures, video, audio, geographical location etc. In addition, the user and the brand communication channels are more unobstructed, brand can develop products according to user demand, such as mouth ten cent launched “if there is a computer software WeChat version you use?” The network survey, unimpeded the communication channels of users and enterprises, and provided the possibility for enterprises to develop products more suitable for users' needs.

$$\text{support}(X \Rightarrow Y) \tag{1}$$

$$\text{support}(X \Rightarrow Y) = \text{sup port} X \cup Y = P(XY) \tag{2}$$

Social media has its own social and participatory nature, allowing consumers to express their opinions of something whenever and wherever they want. In this regard, social media marketing is a double-edged sword, which can bring huge profits to enterprises and can bring crisis to enterprises. The time has come for users to create and define brands, especially since the voice of the media has intensified this process.

$$\text{conficence}(X \Rightarrow Y) = \frac{\text{sup port}(X \cup Y)}{\text{sup port}(X)} = P(Y \updownarrow X) \tag{3}$$

The brand of new media era is continuously established through the Internet word of mouth, and the evaluation and attitude of users are crucial to the development of enterprises. Therefore, in the face of the trend of consumers to define brands, enterprises can only stand out in the social media marketing activities by actively interacting and being honest. In international luxury brand Burberry, for example, to strengthen the interaction with consumers, on your own web page design and consumers everywhere, there are hundreds of thousands of consumers upload his photos wearing a Burberry trench coat, can be in this great online photo click, comment, share each other's photo on the wall. In addition, Burberry also specially designed interactive marketing of its own web site, artofthetrench.com, “due to good at this kind of interactive marketing and launched the first digital display, making Burberry soon becomes the leader of fashion company website”. In social media marketing, resources, funds, seniority is no longer critical, the vast majority of businesses are standing on the same starting line, the competition between enterprises compete is integration, creative as well as to the connections of the control level.

3. Social media user behavior analysis

American Austrian economist Joseph Schumpeter put forward the theory of innovation in the field of economics, for social media marketing in the process of comprehensive utilization of social

media platform provides rich theoretical guidance. He thought that the so-called “innovation” is to build a new production function, namely the factors of production, is to put a never about production elements and production conditions “new combination” introduced in production system, in order to realize to the factors of production or production conditions “new combination”, and this is the purpose of the “new combination” potential profits, namely the maximum gain excess profits. Therefore, the development of social media marketing is not must have how advanced technical support, how adequate capital, how to strong marketing team, need only is the integration of comprehensive utilization of media, media resources, the “new combination” is one kind of innovation.

$$\begin{cases} f_1 = a_{11}X_1 + a_{12}X_2 + \cdots + a_{1p}X_p \\ f_2 = a_{21}X_1 + a_{22}X_2 + \cdots + a_{2p}X_p \\ \dots\dots\dots \\ f_m = a_{m1}X_1 + a_{m2}X_2 + \cdots + a_{mp}X_p \end{cases} \quad (4)$$

Social media integration marketing can start from three aspects: strategy, resources and data. Interactive integration as the core of the social media marketing strategy, through interaction to integrate network resources in their place, in the online and offline form a complete set of interactive behavior guide, immediate feedback and updated in real time. Integrating all available media resources, we will purchase social media, self-owned social media and acquired social media. In data integration is to get the consumer's transaction data, traffic data, location data, data search and other third-party data together, through the comprehensive analysis, formulate marketing strategy. Social media marketing, though much, has entered a state of disorder. Nowadays, the vast amount of information is transmitted to consumers through various social media channels, and consumers' attention to the brand is getting lower and lower, which has a huge impact on the traditional brand loyalty concept. On the contrary, the demand for new and different individuation is constantly amplified, and the brand concept of consumers is constantly changing, which is bound to lead to the establishment of a new brand position. Nokia, for example, nokia has a reputation for durable and highly respected, but in the face of the impact of the new media era mobile interconnection and interaction requirements, nokia is forced to is in decline because of the lack of innovation. Creates the brand is not easy, it's harder to keep the brand in social media marketing is particularly important to the user experience, user's focus is the enterprise need to pay attention to point, pay close attention to the topic the user in real time and feedback to maintain the vitality of the brand. Enterprise through the social media discussion hot topic, actually does not have to promote products, it also can help enterprise to realize its own problems, to update their product strategy, enhance the image of itself in the consumers' mind at the same time. In the mouth is competitive, product homogeneity is more and more strong in the market, consumers have more choices, this requires the management behavior of enterprise must take the customer as a starting point, at the same time, the customer is the core of customer relationship management (CRM). Through social media platform, enterprises can conduct social customer relationship management (SCRM). Consumers will actively communicate with companies about their interests and interests, and the type of service, service level and service products they want. Therefore, enterprises must better communicate with consumers through customer relationship management and improve their own products and services. Michel Canon and Bruno Latour's Actor - Network and found that “Actor Network” in the “actors” is uncertain; the relationship between each Actor is a node (knot or node), the access links between nodes, and woven into a seamless web of together. In the network, there is no centre, no opposition between subject and object, each node is a main body, and one can act of actors, each other in an equal status. The analysis of network activity in the big data era provides a more speculative space for people to think about their social media interactions from an audience's perspective. Twitter information model reflect the reality of agent theory, through the big draw a map of social network and data analysis technology can explain the relationship between the

user, the interests of the people gathered in the key “node” demands and to form the network settlement the group characteristic of the crowd.



Figure 3 Information communication model

Big data technology can predict consumers' consumption behavior by analyzing the mass data collection and realizing the query and mining of valuable data. The use of social media makes the user's behavior from the simple information content acquisition into the integration of consumption, creation and sharing of the integrated Internet utilization behavior. Through big data technology, social media records consumers' online consumption records, analyzes and calculates consumer demand that consumers may have. The data collection and analysis of big data technology in every link can be used to describe every aspect of consumption behavior and realize the insight into consumer behavior. To Wal-Mart personal information data collection platform as an example, through the transaction data and market activity data, user information, social media data collection and analysis, and accurate positioning user needs, provide relevant user product, and promote the related user product through data feedback platform will be released commodity information to the user terminals, the company's web site and shops supermarkets consumption front, guide the market operation. See below 4.

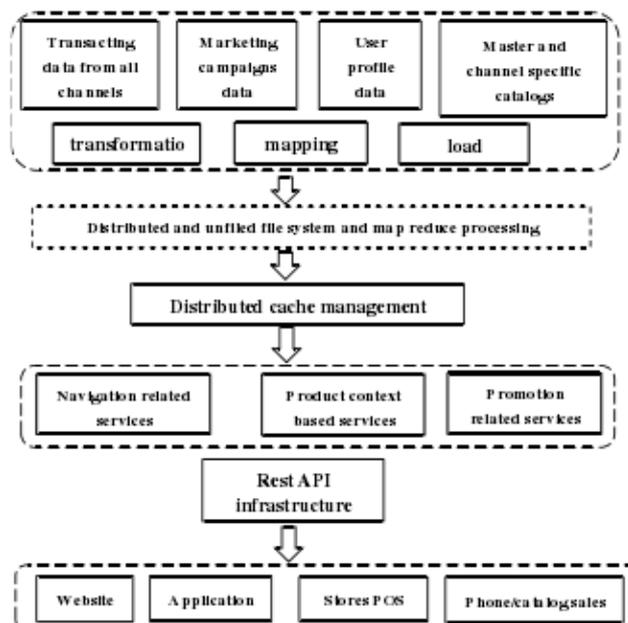


Figure 4 big data marketing process

4. Conclusion

Social sharing is to use social media to share information, opinions, experiences and viewpoints easily, so that information can be spread quickly between users. Users can modify and disseminate information via forwarding, sharing and other functions to form a two-way communication mode. Most scholars will focus on the influencing factors of user sharing. The organization of information will greatly influence the sharing of users. Users are more willing to forward the content and relax, more useful information to them, and the information combined with the graphic text is more likely to cause users to share behaviors. In addition, information quality can also significantly affect the user's forwarding behavior. The higher the quality of information, the more trusting the user will be and the more willing to forward the message. In addition, the high quality of information reduces the perceived risk of users and increases the willingness to forward. The satisfaction degree of leisure and entertainment, the satisfaction degree of self-identity and the satisfaction degree of social intercourse will influence the user's willingness to forward the message. Opinion leaders tend to a product or service can provide professional advice, at the same time with the image of honest and reliable, so more will win the public's trust, understanding and judgment of information to users has the important influence. Opinions of opinion leaders are frequently forwarded or disseminated by users, influencing users' information decisions. The more influential opinion leaders are the more positive their fans' online discussion and communication will be. "Fans" sometimes form habitual rewets and comments because of their love and worship of opinion leaders. The survey of Flicker users found that commitment, self-development, reputation and use time significantly affect users' information sharing behaviors; the use of time can regulate the relationship between pleasure, self-development and information sharing. The celebrities on weibo platform have the characteristics of attention number and number of attention. Users are willing to increase their attention by adding others' accounts and increasing the number of posts. Users who are more open about their gender or self-assessment are also willing to publish addresses and blog posts. Because the threshold of micro blog website is low, as long as the registration can be used, and the information of micro blog gets timely, it is convenient for users to communicate with others, which greatly satisfies the user's needs. In addition to convenience, interactivity, personality expansion and security will also affect user satisfaction. The number of followers, the number of followers and the number of tweets posted are positively correlated. Sina weibo has some drawbacks in providing user experience. WeChat users mainly use WeChat for instant messaging; WeChat provides convenience for user communication and promotes people's communication. The lack of supervision of WeChat led to some fraud, which affected user satisfaction. In the virtual world, the virtual social interaction will gradually dilute the user's social sense of belonging.

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