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Research on Formation Mechanism and Information Value in the Age of Intelligent Algorithms with Tik Tok as an Example

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Abstract: *Intelligent algorithm is embedded in the media context of Tik Tok, the values is displayed in the information production process, the values is tested in the information distribution process and the values is cultivated in the information feedback process, which constitutes the formation mechanism of information values. Intelligent algorithm presents the hot search text of the Tik Tok visually, the user's personal judgment of values, the algorithm's judgement again of values and the human-computer interaction's co-presentation of values construct the concrete representation of information values. Under the influence of intelligent algorithm, the information values community of Tik Tok have the characteristics of stability, mapping, publicity, objectivity and guidance.*

Key words: *Algorithm; Information values; Tik Tok; Hot search*

Introduction

Negroponte had the idea of "combining data into personal abstracts that produce only one unique edition a day ". In the age of intelligent algorithms, app successfully constructs a media model with personalized information needs as its core. The low threshold user control mechanism makes the video content of all kinds of values can be circulated in the quiver app, which undoubtedly increases the difficulty of self-control. In addition to the support of the algorithm recommendation system, the user's information choice and recommendation system constitute a situation of power balance. Long-term media contact will produce three types of user value effect: Strengthen the original value preference, change the original value preference and determine the unknown value preference. The construction of short video platform is becoming more and more mature and far-reaching. The research on information values of media ontology needs to explore the value characteristics of information values under the influence of intelligent algorithms through empirical research methods.

Research Background

The concept of "information values"

For the definition of "information", the American "Weber Dictionary" interprets it as "facts used for communication, data obtained in observation, news and knowledge". British oxford dictionary:" information

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is about things, news and knowledge ". Kluckhohn and Strodtbeck argue that values are an explicit or implicit view of what is "worthwhile" and that, as a characteristic of individuals or groups, values influence people's choices of behaviour, means and goals (Kluckhohn, Strodtbeck & Roberts, 1961); Rokeach argues that important features of assessment also include having a "motivational function ", which is enduring belief, a concrete way of behavior or the ultimate state of being, is the guide of action and attitude (Rokeach, 1973). Schwartz argues that values are desirable states, objects, goals, or behaviors that transcend specific situations and can be used as criteria for judgment and choice in a certain manner of conduct (Schwartz, 1992). On this basis, Chen Changfeng and Yu Xin (2019) proposed that information values are the sum of people's positions and attitudes towards the value relationship and value size between information and information technology and people in the practical activities of using information technology for information production, distribution and feedback interaction (Chen & Yu, 2019). Weaver et al regard it as a reflection of the type of information citizens want or need, and a reflection of the combination of organizational, social, and cultural norms and economic factors (Weaver, David, Beam, Brownlee, Voakes & Wilhoit, 2007).

Current situation of Chinese and foreign studies

In domestic research,24 and 17 Chinese periodical papers were retrieved in China with the theme or key words of "information values ". Through the content analysis, it can be found that domestic scholars are moving from the split study of "information" and "values" to the holistic study of "information values ", from the theoretical analysis of what should be to the empirical analysis. On the other hand, on the Web of Science, we can find that foreign scholars take computer-related fields as the main research object and don't have the trend of holistic research on information values.

Research on the influence of "intelligent algorithm" on "values"

As for the definition of intelligent algorithms under the news media view, Diakoplos believes that it is the basic news task of using algorithmic technology to collect, plan, verify and distribute information. These algorithms are changing the process of news production and the user experience of news consumption (Diakoplolos, 2017). An intelligent algorithm characterized by high-efficiency aggregation and accurate distribution is designed to meet the needs of individuals. In the age of intelligent algorithms, new media platforms such as Webber and shaking sound have become an important part of people's thinking collision and information dissemination. The interests of all parties are intertwined, and the values are constantly changing in the integration and repulsion Development. The positive effect of "value leading" on the rationality analysis of different value dimensions, integrating various viewpoints and promoting the positive development of society is affirmed in the thesis, and its importance is self-evident (Liu & Shen, 2014).

In a sense, intelligent algorithm is only a tool, and so-called "intelligence" is only a human activity, not simply a machine activity, so behind the algorithm, play a leading role is a "value " (Guo, 2018) then, giving media technology humanistic value is the effective way to construct information values (Zhou, 2019), holding the main theme of new media content construction and the positive direction of public opinion, to respect and support the positive social trend of thought, to expose, criticize and guide the wrong trend of thought reasonably (Wu, 2018).

The research at home and abroad has found that the current discussion on information values of intelligent

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algorithms has found the following problems: scholars have done more normative analysis of them, such as explaining that algorithm bias may lead to its value bias can be roughly divided into six dimensions: certainty, interpretability, misleadingness, fairness, autonomy, reversibility (Mittelstadt et al., 2016), but little empirical real analysis; and there is already a conceptual basis for research, there is still a lack of logical connection and a single focus on the content of algorithm evaluation, ignoring the process of algorithm evaluation. To explore how different subjects coordinate their interests in the process of making and developing intelligent communication decision mechanisms and methods to reach consensus, and become the proper meaning of relevant research (Chen & Yu, 2019).

Formation Mechanism of Information Values

Value presentation of information production

In the information production link, mainly for the voice app user's values display: commercialization and popularization. The commercialization of information production is reflected in the information capital relationship between the platform and the user, the information publisher and the receiver. App adopts the low threshold type creation mode, it brings together the information creativity of many users, and a large amount of user flow gives birth to information capital and supports the operation and development of the platform. As the core driving force of the development of the platform, the information interaction between the video publisher and receiver is not only the source of the platform capital creation, but also the catalyst of their own information capital relationship: the information abstract dimension of your production, I consumption; the specific goods dimension of your sale, I purchase, performance for the network red economy.

The popularity of information production is that intelligent recommendation actively obtains user feedback on video content. Recommendation system is based on our value judgment, after the audit team will screen the video into the recommendation system, users based on its value judgment through browsing, likes, attention, forwarding, comments, reports and other behavior feedback, to express their "good" expectations, so as to achieve popular value display. In the first quarter of 2018, Tik Tok was the world's largest downloadable iPhone app, according to US investigative firm Sensor Tower.

Value test of information distribution link

The algorithm recommendation of quiver App can be divided into two parts: the accurate recommendation of the video recommendation of the initial interface and the relationship of user behavior (Chen & Yu, 2019). The information distribution supported by intelligent algorithm acts on the test of user information values: whether the initial values of the user are unknown, whether the initial values of the user are clear or whether the initial values of the user are uncertain.

The initial interface video recommendation algorithm can be divided into indexed measurement and non-indexed measurement. The main measures of indexation are:1 user dimension: including occupation, age, gender, and implicit user interest label according to user behavior data (likes, forwarding, sharing, stay time, etc.), etc. 2 video dimension: the label division of video content matches the user's interest label. Environmental characteristics: information demand transfer based on the physical spatial transfer of mobile

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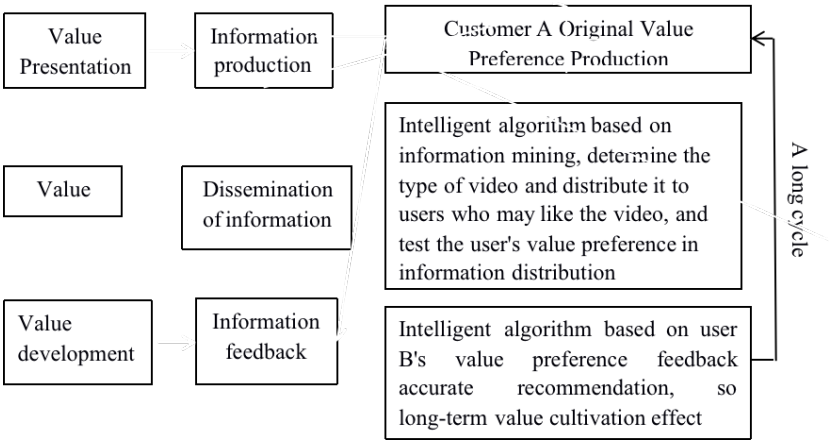
internet. Non-indexed measures are mainly to restrict or disable video content that does not meet the release requirements, such as advertising content, vulgar content, title party, etc. The audit consists of a combination of algorithms. The video recommendation of the initial interface is completed by the algorithm analysis, but the user's personal interests or needs are the core, so it is still the embodiment of the user's personal value judgment in essence.

The precise recommendation for user behavior relationships runs on the basis of various labels for users and videos. The user dimension is mainly the analysis of personal basic information and environmental characteristics. according to the user characteristics, interest characteristics, behavior characteristics and other personal information to form a more stable user label. while the environmental features are more temporary, but the label is more accurate. The video dimension is mainly text analysis, picture analysis and video analysis. Text analysis is an important source of intelligent recommendation, supplemented by picture analysis and video analysis, to complete the work of video label creation. The precision recommendation algorithm is more complex than the video recommendation on the initial interface, but the user The excavation of value tendencies is more thorough.

The value cultivation of information feedback

The information feedback of quiver App is mainly information feedback between platform and user. The information feedback process based on intelligent algorithm is actually the cultivation process of user information values. In the constant feedback correction of information, it has the function of cultivating the values of the users.

Figure 4 The formation mechanism of App information values



Based on the interactive data of the video publisher and receiver, the platform uses the indexable elements and the non-indexed elements to measure whether the video relationship between users continues or not. The indexable elements refer to the label matching degree of both users, the matching degree of the receiver label feature with the video content, the matching degree of the environment characteristic of the receiver with the video content, the machine evaluation of the receiver for the video content itself (residence time, forwarding quantity, likes quantity, etc.), etc. Elements outside the index refer to data elements that cannot be directly estimated by the model, such as advertising, illegal and vulgar content control. Benefits of Internet technology, the recommendation system starts to process the data. The recommendation system without rationality and relational rationality algorithm makes the user feedback more accurate and real-time.

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Value Characteristics of Information Values

Stability: Internal structure

The community of information values influenced by intelligent algorithm has obvious stability, that is, the internal structure of information values in a specific time, conditions and environment has stability, which is manifested as the main component of the internal structure of celebrity effect class, Yan life class and social news class. Quilt app is a music creative short video (Deng & Zhang, 2018), which takes "life" as the main means to enter the field of public communication (Peng, 2019), thus determining that it is destined to have a strong popular color. The celebrity effect video mostly takes the star as the video main body to carry on the content creation, this kind of video is easy to spread in the platform interior and obtains the huge amount of traffic. such as 2 On August 4,019, the 23rd hot topic was "Li Xian's first quiver ", with a heat of 61.728 million. The number of likes for the topic was 24.795 million, the number of comments were 3.275 million and the number of forwarding volume was 1.076 million. The account released three videos with a total of 23.32 million fans (all of which ended at 20:00 on October 28,2019). The social news category consists of two main categories, one is the original video content for the platform users For the news material, on the other hand, for the platform users for the real world of all kinds of news events multi-dimensional perspective production, dissemination of news material.

Mapping: Topic derivation

The community of information values influenced by intelligent algorithm has obvious mapping, that is, the deep attention of platform users to hot search topics, mining will bring about other related topics, and the cascade of related topics will be greatly influenced by current affairs and political factors. During the 2019 college entrance examination, there were several hot topics related to the "college entrance examination ", such as" people's daily college entrance examination composition questions "," parents wearing cheongsam to send their children to the college entrance examination "," men ordered their fathers to break into the college entrance examination restricted area "," after the end of the college entrance examination completely release self "and so on. During this period, the number of hot search texts in social news category has increased obviously, and the face of life category, hunting Quirky, child pet and other topics are showing a downward trend. The topic of hot search in special period reflects the mapping of information values. The app information values community under the influence of the algorithm technology is stable, and the star effect class and the face life class still occupy the main part. But under the influence of current affairs and politics, the deep attention of platform users to special events will promote the derivation of related topics, and form the short-term "agenda setting" effect in the platform to some extent.

Public: Sources of information

The information values community influenced by the intelligent algorithm has obvious publicity, that is, the hot search text generated by the quivering App intelligently contains the measurement and evaluation of public importance, and the professional journalists integrate the fragmented information to create the complete news context and news significance (Harker, Parks, Caster, Zhang & Li, 2013). The "Chongqing porsche female owner" incident began with the video sharing of users, and then spread widely within the

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platform, quickly becoming the focus of public opinion. On August 2,2019, the top-ranked hot search topic was "Chongqing Public Security thoroughly investigated Porsche female owners ", with a heat of 11.988 million. On August 5,23 o'clock hot spot first topic is " Porsche female driver's husband has been suspended ", heat 5.812 million. Throughout the progress of the event, almost all sources of media coverage are derived from the multi-dimensional perspective of the users. The "Chongqing porsche female owner" incident is the platform user "people's wisdom" embodiment, the social ugly openly against the law and morality of the bottom line, for the user value category does not agree. The contradiction tension between social ugliness and value identity constructs the growth point of public opinion heat. On the one hand, the public opinion of citizen's multi-dimensional perspective strengthens the network supervision, on the other hand, the public value community provides multi-source news material (Ye, 2009).

Objectivity: True expression

The information value community influenced by the intelligent algorithm has obvious objectivity, that is, the quiver account belongs to the material of the private category of the single user, and the user actually expresses his value preference in the anonymous Internet environment. In the traditional social communication, the independent individual is influenced by the social psychological factors, and to some extent will restrain the true expression of the heart, the stronger the stronger, the weaker the weaker (Chen, 1999). Under the network environment, on the one hand, users will express their real demands in the process of value creation, on the other hand, the intelligent algorithm based on the behavior data depth mining user's value preference, gives the information value community more judgment from the hot search text The credibility. In the theoretical dimension, the video types can be divided into 10 categories, of which 9 are the category of mass culture, and in the empirical dimension, the category of celebrity effect and the category of face life video occupy the majority of the community. Then there is the hidden worry about the value creation of app: the recommendation mechanism of intelligent algorithm will make the user close to the "information cocoon room" for a long time, whether it will make the value preference of the user extreme development in the long run (Guo & Meng, 2018)?

Orientation: Behavior shaping

The information value community affected by the intelligent algorithm has obvious orientation, that is, the algorithm relies on the topic attention of the platform users to generate the hot search text, the hot search text reverse stimulates the platform users'attention and search, and the circular mode of information generation and retrieval produces the effect of user behavior shaping. On June 17,2019, the first topic of 23 o'clock heat was the "now-pinhole camera in the pantry ", with a heat of 6.398 million, and on June 18th the hot topic of" multiple hotel tenants finding pinhole cameras ". September 9,2019, and September 10,2019, the 23rd hot topic of the search is "father and daughter version of the pressure Hat kill ", the heat of 7.331 million and 7.379 million respectively, September 11 at 23 pm ranked first hot search topic is "new version of the pressure cap kill ", the heat of 7.632 million. The focus and search of this article reflect the value judgment of the user, and the content of the hot search text reflects the value behavior of the user. Value judgment guides value behavior, and value behavior embodies value judgment in practice (Wang & Han, 2016). Hot search text reflects the platform user's value cognition and the value demand, instructs the user to practice the behavior simultaneously produces the molding behavior effect.

Conclusions

This paper studies the formation mechanism of information values from the three-level media context of information production, information distribution and information feedback. This paper takes the hot search text of app as the research object, using the research method of short text type division and short text content analysis to study the value characteristic of information value: stability, mapping, public, objectivity and orientation. However, there are some shortcomings in this paper, for example, the theoretical basis of information values research is still weak, there is not enough existing research results to support. In the future research, the author will try to analyze the effect of intelligent algorithm through more diverse quantitative research methods The present situation, characteristics and influencing factors of the user's values contribute to the value leading of Internet users in China's network community.

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