# Research on dynamic measurement of user experience based on mobile social network

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## Abstract

One important determinant of success for an online social network is the quality of the user experience. This article takes the user experience as the starting point, combining multi-discipline to define the user experience in mobile social network. Second, a detailed user experience evaluation system is based on the analysis of the influence factors of the user experience of mobile social network. Again, using the analytic hierarchy process (AHP), the multiple levels of many factors, the measurement of weight, and based on the dynamic fuzzy sets theory, using the dynamic fuzzy comprehensive evaluation method, build a mobile social network dynamic fuzzy comprehensive evaluation model of the user experience. Finally, this paper uses the fuzzy comprehensive dynamic evaluation model to analyze the case of sina, micro-blog and Tencent micro-blog. The results showed that: sina weibo user experience is better than tencent weibo user experience.

## Keywords

User Experience;Analytic Hierarchy Process(AHP);Fuzzy Comprehensive Evaluation Method.

## 1.  Introduction

With the vigorous development of the Internet, online social network has become an indispensable part of people's lives. According to the 39th <Statistical report on the development of China's Internet> which released by CNNIC shows that China's Internet penetration is already more than half of the population and the scale of Chinese Internet users reached 731million as of December 2016.There are more than 80% of new Internet users use mobile devices such as mobile phones in the year 2016, which suggest not only their enlightenment equipment is not the traditional personal computer equipment for today's Internet new participants, but also the development and popularization of mobile Internet has reached a disruptive effect on the development of the Internet.

The development of mobile social networks has attracted wide attention of researchers. Ya Wei Song et al [1] have analyzed the data characteristics of sign in location social networks, and proposed the fusion algorithm of temporal features and collaborative filtering interest points. Xin Yi Bu[2] examined the relationship between users on the social network from the perspective of link prediction, and used Sina micro-blog social networks to make empirical analysis. The research results show that the highest prediction accuracy based on common neighbor algorithm when using separate structure (common neighbor) factors and node attributes (the number of fans, a number of concerns, the number of micro-blog, micro-blog as the number of forwarding) to define factors of proximity, which indicate that the network evolution mainly affected by structural factors and followed by the node attribute. Ying Bin Fu[3] introduced node attributes and then constructed link prediction model based on

random forest and validated the model using Sina micro-blog data from the Sina micro-blog social network perspective, which found that micro-blog attributes can improve the accuracy of link prediction algorithm.

Through a large number of scholars in the mobile social network to do a lot of research work can be seen at home and abroad directions on the mobile social network research are: user behavior analysis, information recommendation system research, information link prediction research. However, it is still less research on user experience. Therefore, this paper takes user experience as the starting point and combines the multi-discipline to define the user experience in social network. Based on the analysis of the factors that affect the user experience of mobile social networks, a detailed evaluation system of user experience is obtained. Secondly, using the analytic hierarchy process to measure the multiple levels of weight, and using dynamic fuzzy comprehensive evaluation method to construct dynamic fuzzy comprehensive evaluation model of the mobile social network user experience. Finally, this paper uses fuzzy comprehensive dynamic evaluation model to analyze Sina micro-blog and Tencent micro-blog.

## 2. The concept of user experience and its influencing factors

### 2.1 The concept of user experience

User experience is a wide range of cross disciplinary interdisciplinary concepts, involving user psychology, sociology, computer science, ergonomics, aesthetics, mathematics, and many other fields. As time advances and mobile social networks flourish, the user experience has become widely known. However, the specific definition of user experience is vague. Here are some definitions of user experience.

Jie Zhang[4] believes that user experience refers to what the user does, thinks, feels, and uses when he or she is using and operating a product or service. Robert Rubinoff[5] proposes to quantify the user experience, including brand, usability, functionality and content, and these four important factors interrelated. Chang ping Hu [6] have analyzed and summarized the important factors that affect the user experience from many aspects, such as information construction, information design, workflow, resource conversion, interface design and cross platform compatibility. Fan yang Zeng [6] studied deeply the user experience evaluation index of Taobao sellers from user security, rich content, visual style design and user interaction among multiple dimensions.

To sum up, user experience is a subjective mental, emotional, and emotional experience which user established it in the process of receiving and using information or services. It emphasizes the self-presentation, pleasure of using products and services and the efficiency of obtaining information of the user in the process of information reception and application.

### 2.2 Analysis of influencing factors of mobile social network user experience

2.2.1 Determination of influencing factors

There is no direct research into the factors that affect the mobile social network user experience. Because B2C, OPAC and other fields and mobile social networks are based on the Internet and user experience research, therefore, the impact of the factors identified in this paper has a certain similarity and reference. James Garrett proposes that the factors that influence the user experience can be broadly divided into five levels: the presentation layer, the framework layer, the structure layer, the scope layer and the strategy layer. Chen Juan [8] believes that the main factors affecting the improvement of user experience are visual appeal, content requirements, interactive experience and subjective emotion. Jie Zhang [5] believe that the main influencing factors of user experience evaluation model can be summarized as the brand effect, appearance design, interaction design, purchase process, information construction, safety and personalized service from the electronic commerce website perspective. Lu chuan Liu [9] focused on user emotion, introduced the concept of psychology, analyzed and analyzed the emotion of users, and proposed two hypotheses: positive emotion and negative emotion. Bang qun Li [10] thinks the content and function layout, page element color and help and guidance are three factors affecting the user experience of OPAC.

This paper identifies the factors that influence the user experience of mobile social network from two aspects of "human" and "machine" based on the research results of relevant literature and questionnaire survey, "Human" means the user's own characteristics. "Machine" can be divided into interface design, programming and optimization, personalized function and service.

2.2.2 The mechanism of influencing factors

This article from the color, interface, mode of operation three aspects to measure the appearance of the interface design. First of all, a well-designed appearance interface will have a strong appeal to new users. Secondly, the operation is so convenient that the user will have a sense of dependence, and then the user experience will increase.

This paper measures the design and optimization of the program in three aspects: easiness, error, effectiveness and efficiency. Whether software can digest user instructions quickly and efficiently meet user needs will directly affect the effect of user experience in the era of information flooding.

This paper from the LBSN services, multimedia display services, mobile mobile payment services to measure three aspects of personalized features and services. Today, in the context of large data, mobile payment, GPS positioning has become a part of people's lives, mobile social network in the basic functions at the same time , if you can increase the personalized service function, not only can improve the user experience, but also can increase the amount of users.

The article analyzes the characteristics of the users in terms of gender, age, degree and income, it is because the user experience is a gradual process so that the four indicators is not easy to have a great change in a short period of time.

# 3.  A dynamic evaluation model for user experience

## 3.1 User experience evaluation system

Based on the analysis of the influencing factors of user experience in mobile social network, this paper establishes the user experience evaluation system from three aspects: interface design, program design and optimization, personalized function and service. As shown in Table 1.

Table 1 User Experience Evaluation System

| Target layer | Criteria layer | Index layer | Description |
|---|---|---|---|
| User experience overall evaluation | Interface design | Color | Including the page color matching and visual style |
| | | Interface | Picture, icons, buttons, visual effects,  page animation, navigation bar and page layout |
| | | Operation method | User's operation help,  operation feedback hint and gesture convenience of mobile terminal |
| | Program design and optimization | Fault tolerance | The time required by the user to correct the error, prompt help when the user is incorrect |
| | | Effectiveness | Whether the resources provided by the software are useful,  whether the user is interested and filtering spam |
| | | Efficiency | The operation process is short, the operation response is quick, the information retrieval is quick |
| | Personalized functions and services | LBSN service | Location sharing and sign-in, social places recommended services, group services |
| | | Multimedia display service | Video display,  audio display, image display |
| | | Mobile payment service | Provide convenient and safe mobiles canning code payment function, preferential payment function |

## 3.2 Evaluation model based on Analytic Hierarchy Process

3.2.1 Establishes a hierarchical structure model

Table 2 Hierarchical model

| First layer | Second layer | Third layer |
|---|---|---|
| User experience overall evaluation T | Interface design P1 | Color A1 |
| | | Interface A2 |
| | | Operation method A3 |
| | Program design and optimization P2 | Fault tolerance A4 |
| | | Effectiveness A5 |
| | | Efficiency A6 |
| | | LBSN service A7 |
| | Personalized functions and services P3 | Multimedia display service A8 |
| | | Mobile payment service A9 |

3.2.2 Construct judgment matrix

"1~9 scaling method" conforms to human cognitive law, and it has a certain scientific basis and it is also more intuitive and easy to score. The specific meaning of each scale is shown in detail in Table 3 below.

Table 3. 1 ~ 9 scale method schedules

| scale | definition | Meaning |
|---|---|---|
| 1 | Equally important | Two factors on a property, a factor and another factor is equally important |
| 3 | Slightly important | Two factors for a property, a factor is slightly important than another factor |
| 5 | Obviously important | Two factors on a property, a factor is obviously important than another factor |
| 7 | Strongly important | Two factors on a property, a factor is strongly important than another factor |
| 9 | Extremely important | Two factors on a property, a factor is extremely important than another factor |
| 2, 4, 6, 8 | Adjacent scale median | The scale of the compromise between adjacent scales |

This paper get the judgment matrix of table 4 to table 7 according to a questionnaire survey of 300 users who regularly use mobile social networking services.

Table 4 Judgment Matrix T

| T | P1 | P2 | P3 |
|---|---|---|---|
| P1 | 1 | 2 | 1/3 |
| P2 | 1/2 | 1 | 1/5 |
| P3 | 3 | 5 | 1 |

Table 5 Judgment Matrix P1

| P1 | A1 | A2 | A3 |
|----|----|----|----|
| A1 | 1 | 1/5 | 1/3 |
| A2 | 5 | 1 | 3 |
| A3 | 3 | 1/3 | 1 |

Table 6 Judgment Matrix P2

| P2 | A4 | A5 | A6 |
|----|----|----|----|
| A4 | 1 | 1/6 | 1/5 |
| A5 | 6 | 1 | 3 |
| A6 | 5 | 1/3 | 1 |

Table 7 Judgment Matrix P3

| P3 | A7 | A8 | A9 |
|----|----|----|----|
| A7 | 1 | 1/3 | 5 |
| A8 | 3 | 1 | 7 |
| A9 | 1/5 | 1/7 | 1 |

In order to avoid some common contradiction, it is necessary to check the consistency of the judgment matrix. The specific steps are as follows:

Step1: Calculate the maximum eigenvalue of matrix A $\lambda_{max}$ , we can use $\lambda_{max} = \sum_{i=1}^{n} \frac{A\overline{W_i}}{n\overline{W_i}}$ .

Step2: Calculate consistency index C.I., we can use $CI = \frac{\lambda_{max} - n}{n-1}$ .

Step3: Examined the Index values for average random consistency

Step4: Calculate consistency ratio C.R. When C.R.<0.1 is considered, the consistency of the matrix A is satisfied. We can use $CR = \frac{CI}{RI}$ .

According to the above steps to calculate the consistency of the judgment matrix test results, as shown in Table 8 below.

Table 8 consistency ratio C.R. test result table

| Test matrix | Test results of maximum eigenvalue and consistency index | Consistency ratio test results |
|----|----|----|
| T-Pn | λmax=3.004 C.I.=0.0018 | C.R.=0.003<0.1 |
| P1-An | λmax=3.039 C.I.=0.0193 | C.R.=0.033<0.1 |
| P2-An | λmax=3.095 C.I.=0.0477 | C.R.=0.082<0.1 |
| P3-An | λmax=3.066 C.I.=0.0328 | C.R.=0.057<0.1 |

It can be concluded that each judgment matrix has satisfactory consistency from the table consistency ratio test results C.R.<0.1.

3.2.3 Calculate the weights of the elements at all levels

The article can calculate the weight of each layer element according to the comparison of matrix structure from above tables, it is shown in Table 9 as below.

Table 9 summary table of element weights

| Target layer | Criteria layer | Weight | Index layer | P-weights | T- weights |
|---|---|---|---|---|---|
| User experience overall evaluation T | Interface design P1 | 0.230 | Color A1 | 0.106 | 0.02438 |
| | | | Interface A2 | 0.633 | 0.14559 |
| | | | Operation method A3 | 0.260 | 0.05980 |
| | Program design and optimization P2 | 0.122 | Fault tolerance A4 | 0.081 | 0.00988 |
| | | | Effectiveness A5 | 0.627 | 0.07649 |
| | | | Efficiency A6 | 0.292 | 0.03562 |
| | Personalized functions and services P3 | 0.648 | LBSN service A7 | 0.283 | 0.18338 |
| | | | Multimedia display service A8 | 0.643 | 0.41666 |
| | | | Mobile payment service A9 | 0.074 | 0.04795 |

Through the above elements of the weight of the summary table conclude: the most important layer of the guidelines is personalized features and services(P3) , accounting for 0.648 of the weight. At the target level, the biggest factor affecting the interface design(P1) is the interface (A2), the most important factor for programming and optimization (P2) is effectiveness(A5), multimedia display service(A8) is the most important factor for personalized function and service (P3). The target layer is relative to the T layer, and the three most important factors are multimedia display service (A8), LBSN service (A7) and interface (A2).

### 3.3 User experience fuzzy comprehensive dynamic evaluation model

3.3.1 Evaluating indicator set and index weight set

According to table 2, the overall evaluation index set of the user experience (T) is

U(T) = {P1, P2, P3}

The interface design index set (P1) isU(P1) = {A1, A2, A3}

The programming and optimization index set (P2) is U(P2) ={A4, A5, A6}

The personalized function and service index set (P3) is U(P3) = {A7, A8, A9}

Next step is to determine index weight set of each layer ,according to the element weight summary table above:

relative to the target layer, the index weight set of the criterion layer is

W(T) = {0.230, 0.122, 0.648}

Then the index weight set of the index layer relative to the criterion layer is confirmed as follow:

The interface design weight set (P1) is W(P1) = {0.106, 0.633, 0.260}

The programming and optimization weight set (P2) is W(P2) = {0.081, 0.627, 0.292}

The personalized function and service weight set (P3) is W(P3) = {0.283, 0.643, 0.074}

3.3.2 Dynamic evaluation selection set and the score vector set

For the convenience of mobile social network users to evaluate the various factors in the questionnaire, but also for later calculation and Research on intuition. This paper adopts the five grading method. Set the dynamic evaluation selection set as:

V = {(V1↑, V1↓), (V2↑, V2↓), (V3↑, V3↓), (V4↑, V4↓), (V5↑, V5↓)}

Where V1 means very good, V2 means good, V3 means general, V4 means poor, V5 means very poor.

In the evaluation selection, this paper introduces the concept of dynamic change trend: The symbol of ↑ means development trend, the influence index of the corresponding has a better again. Similarly,

the symbol of ↓ means more decrease. For a more intuitive, this paper also gives the corresponding grade value to the membership degree of the comment grade, the corresponding scores of very good, good, general, poor, very poor are 90, 80, 70, 55, 45. Then, the score vectors set is S = {90, 80, 70, 55, 45}.

### 3.3.3 Dynamic fuzzy evaluation matrix

Through evaluating all the target layer indexes in the user experience evaluation index system based on mobile social network separately, the single index evaluation vector is established:

Ri = {(ri1,ri1),(ri2,ri2),(ri3,ri3),(ri4,ri4),(ri5,ri5)}

(Where 'I' is the first i indicator in index layer)

Then, a single index dynamic fuzzy evaluation matrix R is constructed. Each row in R corresponds to the factors that represent each index layer, and each column corresponds to the score vector.

### 3.3.4 Dynamic fuzzy comprehensive evaluation results

In order to facilitate the analysis, the results should be expressed in numerical terms. Therefore, this paper combine the dynamic fuzzy evaluation matrix R and the score vector S to obtain the quantized score value:

$$Z(Ai)=Ri \circ S \qquad (1)$$

Here I is the index number of the index layer, and the range of I is the total number of the index level. " $\circ$ " is the fuzzy arithmetic symbol.

The scoring value of the criterion layer is obtained by weighted operation of the index layer score. It can be expressed as a formula:

$$Z(Pn)=Z(Ai) \circ W(Pn) \qquad (2)$$

Here, n is the index number of the criterion layer, I is the index number of the index layer, and the range of n is the total number of the index of the standard layer. The range of I is the total number of the index layer under the layer n, and " $\circ$ " is the fuzzy arithmetic symbol.

Similarly, the score of the target layer can be expressed as a formula:

$$Z(T)=Z(An) \circ W(T) \qquad (3)$$

Here, n is the index level ordinal number, the range of n is the total number of the criterion layer, and " $\circ$ " is the fuzzy arithmetic symbol.

## 4. An Empirical Analysis of Sina Weibo and Tencent Microblogging

### 4.1 Data sources

In this paper, 300 long-term users of Sina micro-blog and Tencent micro-blog have obtained their evaluation of mobile social network experience by means of questionnaires. The evaluation of the influencing factors of the index level can be summarized and can be expressed in the form of table 10 and table 11.

Table 10 Evaluation table of influencing factors of Sina micro-blog

| Rating / Influence factor | Very good↑ | Very good↓ | Good↑ | Good↓ | General↑ | General↓ | Bad↑ | Bad↓ | Very bad↑ | Very bad↓ |
|---|---|---|---|---|---|---|---|---|---|---|
| A1 | 0.17 | 0.11 | 0.27 | 0.22 | 0.09 | 0.06 | 0.04 | 0.00 | 0.01 | 0.03 |
| A2 | 0.27 | 0.20 | 0.15 | 0.11 | 0.12 | 0.12 | 0.01 | 0.02 | 0.00 | 0.00 |
| A3 | 0.25 | 0.22 | 0.24 | 0.17 | 0.05 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| A4 | 0.11 | 0.07 | 0.12 | 0.15 | 0.27 | 0.22 | 0.02 | 0.01 | 0.02 | 0.01 |
| A5 | 0.31 | 0.24 | 0.26 | 0.11 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 |
| A6 | 0.25 | 0.22 | 0.16 | 0.19 | 0.06 | 0.05 | 0.04 | 0.02 | 0.01 | 0.00 |
| A7 | 0.27 | 0.22 | 0.19 | 0.21 | 0.05 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 |
| A8 | 0.11 | 0.19 | 0.15 | 0.25 | 0.07 | 0.17 | 0.01 | 0.05 | 0.00 | 0.00 |
| A9 | 0.05 | 0.07 | 0.12 | 0.15 | 0.23 | 0.25 | 0.06 | 0.04 | 0.02 | 0.01 |

Table 11 Evaluation table of influencing factors of tencent micro-blog

| Rating / Influence factor | Very good↑ | Very good↓ | Good↑ | Good↓ | General↑ | General↓ | Bad↑ | Bad↓ | Very bad↑ | Very bad↓ |
|---|---|---|---|---|---|---|---|---|---|---|
| A1 | 0.02 | 0.01 | 0.13 | 0.15 | 0.29 | 0.25 | 0.08 | 0.04 | 0.01 | 0.02 |
| A2 | 0.00 | 0.00 | 0.15 | 0.17 | 0.19 | 0.22 | 0.02 | 0.10 | 0.07 | 0.08 |
| A3 | 0.02 | 0.03 | 0.13 | 0.14 | 0.24 | 0.26 | 0.05 | 0.09 | 0.01 | 0.03 |
| A4 | 0.00 | 0.01 | 0.08 | 0.09 | 0.24 | 0.21 | 0.18 | 0.15 | 0.02 | 0.02 |
| A5 | 0.09 | 0.05 | 0.17 | 0.17 | 0.21 | 0.26 | 0.01 | 0.04 | 0.00 | 0.00 |
| A6 | 0.05 | 0.03 | 0.15 | 0.16 | 0.27 | 0.21 | 0.04 | 0.07 | 0.01 | 0.01 |
| A7 | 0.00 | 0.00 | 0.00 | 0.01 | 0.11 | 0.14 | 0.27 | 0.21 | 0.14 | 0.12 |
| A8 | 0.07 | 0.04 | 0.14 | 0.21 | 0.25 | 0.23 | 0.03 | 0.02 | 0.01 | 0.00 |
| A9 | 0.00 | 0.00 | 0.01 | 0.03 | 0.08 | 0.19 | 0.27 | 0.31 | 0.05 | 0.06 |

The data distribution of the two tables, that is, the data distribution of the dynamic fuzzy evaluation matrix R.

## 4.2 Experimental analysis and results

According to the formula $Z(Ai) = Ri \circ S$, 9 influencing factors for the Sina micro-blog and Tencent micro-blog index layer can be calculated separately, then can draw their own development trend of these factors, such as tables 12 and 13 show.

Table 12 Sina microblogging index level scoring table

| Indicator layer influencing factors | ↑ | ↓ | Final score | Final development trend | Player weight |
|---|---|---|---|---|---|
| A1 | 45.85 | 33.05 | 78.9 | ↑ | 0.106 |
| A2 | 45.25 | 36.3 | 81.55 | ↑ | 0.633 |
| A3 | 45.2 | 38.3 | 83.5 | ↑ | 0.260 |
| A4 | 40.4 | 34.7 | 75.1 | ↑ | 0.081 |
| A5 | 53.45 | 31.1 | 84.55 | ↑ | 0.627 |
| A6 | 42.15 | 39.6 | 81.75 | ↑ | 0.292 |
| A7 | 43.55 | 39.95 | 83.5 | ↑ | 0.283 |
| A8 | 27.35 | 51.75 | 79.1 | ↓ | 0.643 |
| A9 | 34.4 | 38.45 | 72.85 | ↓ | 0.074 |

Table 13 Tencent micro-blog index level scoring table

| Indicator layer influencing factors | ↑ | ↓ | Final score | Final development trend | Player weight |
|---|---|---|---|---|---|
| A1 | 37.35 | 33.5 | 70.85 | ↑ | 0.106 |
| A2 | 29.55 | 38.1 | 67.65 | ↓ | 0.633 |
| A3 | 32.2 | 38.4 | 70.6 | ↓ | 0.260 |
| A4 | 34 | 31.95 | 65.95 | ↑ | 0.081 |
| A5 | 36.95 | 38.5 | 75.45 | ↓ | 0.627 |
| A6 | 38.05 | 34.5 | 72.55 | ↑ | 0.292 |
| A7 | 28.85 | 27.55 | 56.4 | ↑ | 0.283 |
| A8 | 37.1 | 37.6 | 74.7 | ↓ | 0.643 |
| A9 | 23.5 | 35.45 | 58.95 | ↓ | 0.074 |

By the formula $Z(Pn) = Z(Ai) \circ W(Pn)$ further weighted calculation can be drawn for Sina micro-blog and Tencent micro-blog scored three factors in the rule layer, respectively, after the induction can be concluded that development trend of the three factors influencing, such as table 14 and 15.

Table 14 Sina microblogging criteria layer scoring table

| Criteria layer influencing factors | ↑ | ↓ | Final score | Final development trend | layer weight |
|---|---|---|---|---|---|
| P1 | 45.25535 | 36.4392 | 81.69455 | ↑ | 0.230 |
| P2 | 49.09335 | 33.8736 | 82.96695 | ↑ | 0.122 |
| P3 | 32.4563 | 47.4264 | 79.8827 | ↓ | 0.648 |

Table 15 Tencent microblogging criteria layer scoring table

| Criteria layer influencing factors | ↑ | ↓ | Final score | Final development trend | layer weight |
|---|---|---|---|---|---|
| P1 | 31.03625 | 37.6523 | 68.68855 | ↓ | 0.230 |
| P2 | 37.03225 | 36.80145 | 73.8337 | ↑ | 0.122 |
| P3 | 33.75885 | 34.59675 | 68.3556 | ↓ | 0.648 |

Finally, the formula $Z(T) = Z(An) \circ W(T)$ were calculated to calculate the target layer of sina micro-blog user experience score is 80.68, the development trend is down; the target layer of Tencent micro-blog user experience score is 69.10, the trend is down, according to the definition of the membership level of this article, 80 points stands for "good", 70 points stands for "general", it can be seen that the calculated results is: Sina micro-blog user experience evaluation is better, and the Tencent micro-blog user experience evaluation for general.

## 5. Conclusion

This paper mainly uses the analytic hierarchy process and fuzzy comprehensive dynamic evaluation method to study the dynamic measurement of user experience in mobile social network. The following are the results of this study: (1) According to the results of AHP research is not difficult to see, compared to the appearance of interface and programming and optimization, today's mobile social network users are most concerned about the personalized functions and services that social networks can offer. In addition, LBSN services have also attracted much attention, mainly reflected in the daily out, social software will recommend some social networking sites, which is very convenient for users. (2)Through the empirical analysis of the user experience of Sina microblogging,

it is found that users of microblog experience up to the evaluation standard of "good" rating, but the development trend tends to be worse and worse, indicating that the development prospect of the current microblogging is not optimistic.(3)Tencent micro-blog's user experience score belongs to the "general" level, the general trend of development is also becoming worse and worse. According to the research results, this paper gives some suggestions to Sina, micro-blog and Tencent micro-blog. For Sina micro-blog, multimedia display services and mobile payment services should be valued more in future development. And should continue to expand the scope of LBSN services, in social software to add more convenience services, taking into account the needs of users of all ages, to broaden the age of users. For Tencent microblogging, first to perfect the individual function and service diversity, such as LBSN and mobile payment and in the interface and appearance design should also be taken seriously.

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