"What are their emotions?"

Multidimensional User Emotion Analysis
of Short-Video Platforms among China's Aging Population

? **What** are the most common emotional experiences?

? **What** factors influence the user emotional ecperiences?

? **What** is user emotion under different factors?

Population aging is a common trend in the evolution of societies around the world. As society evolves, the lifestyle of the elderly population have changed significantly. The aging of China's internet users has also become apparent in this context. Short video has emerged as a highly distinctive form of media communication. Rapid growth of **short-video platforms** and the growing demand for mobile short videos among the elderly population. The short-video platforms should effectively meet the emotional needs and preferences of this user group in order to improve. Understanding user attitudes, satisfaction, and experiences relies heavily on **user emotion analysis**.

· Methodology ·

1.Comment Sentiment Analysis

Using **web scraping** technology. Between Dec 2018 and Jul 2023, a total of 11,731 comment data under 100 short videos were collected in Douyin.

Perform preprocessing operations on raw data: Remove the @ symbol and the user name that follows it; Remove special characters; Remove any text that is too short; Deduplication of text; Processing of word segmentation; Remove stop words.

Model analysis of preprocessed data, including analysis of Word clouds＋SnowNLP sentiment analysis＋Topic Mining in LDA.

2.User Emotional Questionnaire

Participant the Chinese short-video users who are 50 to 80 years old. Sharing mainly filled in through link sharing to distribution through online forums, chat groups, social platforms, etc.

The **questionnaire design** is divided into five parts：PartI Respondent Demographics; Part II Short Video Usage; PartIII Emotional Experience (Likert Scale); PartIV Factors Influencing Emotional Changes; PartV Interactions with Other Users.
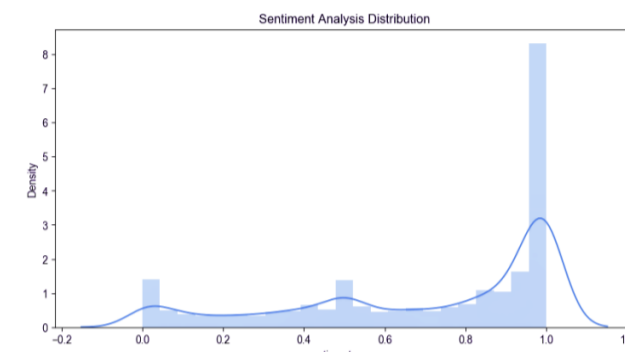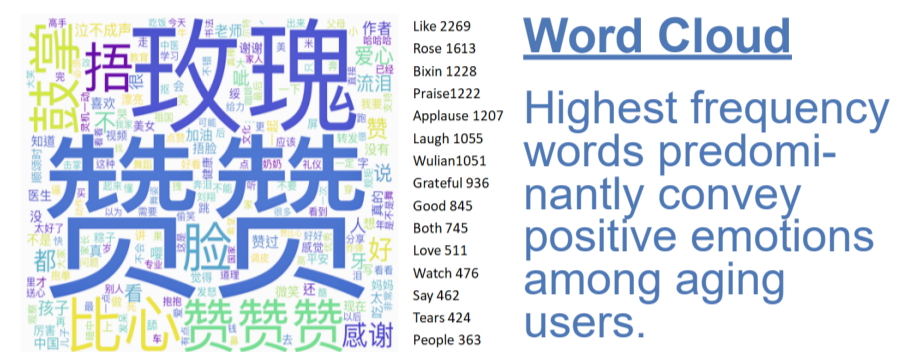
The online questionnaire **data collection** took 2 weeks from 25 provinces in China. After eliminating, 639 valid questionnaires were finally obtained.

3.Semi-structured Interview

The interview was divided into three parts, 10 respondents were interviewed, representing China's aging population who use short videos.

1. Basic information gathering

2. User emotion issues

3. Open opinion discussion

· Finding1·

Word Cloud
Highest frequency words predominantly convey positive emotions among aging users.

Sentiment Score
The overall trend of sentiment scores of comment texts is biased toward positive emotional, also shows a relatively extreme sentiment distribution.

LDA Topic Analysis
Strong alignment between topic analysis and WordCloud high-frequency words, reflect a range of positive emotions. Some possible factors affecting emotion were found.

· Finding 2·

Age distribution:
28.17% - 50—60
43.51% - 60—70
28.33% - 70—80

Gender Distribution:
49.92% - Men
50.08% - Women

Living Condition:
25.67% - Alone
46.95% - With partner
11.74% - With child
15.65% - With partner&child

Education Level:
27.07% - Primary&below
56.18% - Junior school
16.74% - University&above

Place of Residence:
54.15% - Urban
21.44% - Township
24.41% - Rural

Use Behavior
Frequency of use: Multiple times per day: 40.38%; Platform used: Douyin: 76.06%
Interaction: Like: 51.33%, Repost: 33.8%, Comment: 29.26%

Likert Scale
The average of the 5 data is more than 3.7, the median result is 4, indicating a positive attitude among target user group again.

Emotional Factors

Chi-square Test										
	The age		Gender		Living condition		Education level		Place of residence	
	X^2	P	X^2	P	X^2	P	X^2	P	X^2	P
Daily use	20.680	0.002	18.185	0.000	20.680	0.009	13.192	0.002	36.891	0.000
Active interaction	16.636	0.011	15.620	0.032	19.056	0.025	10.975	0.089	14.746	0.022
Passive interaction	15.661	0.016	14.419	0.002	20.096	0.017	6.842	0.336	22.955	0.001

Age, Gender, Living condition, Place of residence
have a significant impact on the user emotion of Chinese aging on shortvideo platform
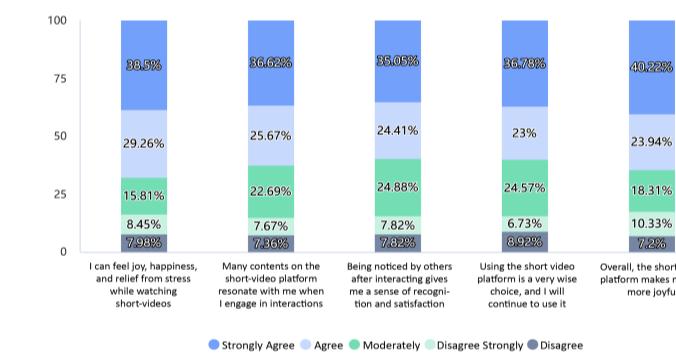
· Finding 3·

Call for better content screening and blocking irrelevant content.—F（68,female,rural）
Raised concerns about platform fluency and unfamiliar functions.—H（76,male,rural）

Concerns about authenticity and misinformation.—C（57,male,urban）
Calls for elderly mode. —J（63,female,township）

Internal Factors
Personal Emotional（2）Emotional Resonance（3）
Personal Choices（3）Interpersonal Connections（2）

&

External Factors
Recommendation Algorithms（4）Social Engagement（2）
Comments and Opinions（3）

· Discussion ·

Comment Sentiment Analysis :
Gain insight into prevalent positive emotion among users. The analysis of the subject words reveals that the emotional experience of elderly users are influenced by a variety of complex factors.

User Emotion Questionnaire:
Dominant positive emotion consistent with sentiment analysis. Age, gender, living condition, place of residence are factors that affect user emotions.

Semi-Structured Interviews:
Excavating external factors, external factors and internal factors together form the difference in emotional experience.

The research methods are interlocking, and the research results are mutually verified. A comprehensive analysis of the research results reveals that the overall emotional experience of Chinese elderly users on the short video platform is in good condition; Age, gender, living condition, place of residence factors and emotional differences under different variables that affect users' emotions are identified; The complex interplay of external and internal factors influencing the user emotion is identified.

CONCLUSION

This research fills some knowledge gaps in the multidimensional user emotion aspects of short-video platforms for China's aging population.

Explores user sentiment through comments on Douyin
Explores variable differences and their impact on emotion
Explores interviews uncover broader influences on user

RECOMMENDATION

It is important to note some limitations that may have an impact on the study's findings.

Originally focused on Douyin, shifted to broader short video field
Insufficient exploration of factors affecting user emotion
Methodology componentsmight lack in-depth analysis

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