

Behavioral Analysis of Chinese Youth's Use of Annual Music Listening Reports from a Media Context Perspective: A Case Study of NetEase Cloud Music's Annual Report (Postprint)

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Abstract

In recent years, the phenomenon of Chinese youth's enthusiastic engagement with annual music listening reports has attracted scholarly attention. Media situation theory, particularly applicable in the internet era, offers novel research avenues: youth's use of annual music reports reconfigures personal contexts, transforming backstage behavioral traces into front-stage displays. This enables the implicit expression of concealed social identity characteristics, transcending spatiotemporal constraints and behavioral limitations through dramatic data. Concurrently, it evokes users' sense of gaming experience, desire to share, and sense of identification, thereby inducing behavioral and cognitive shifts. Consequently, year-end music annual reports, exemplified by NetEase Cloud Music, have emerged as a new focal point of public discourse.

Full Text

An Analysis of Chinese Youth's Use of Annual Music Listening Reports from the Perspective of Media Situation Theory: A Case Study of NetEase Cloud Music's Annual Report

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Abstract: In recent years, Chinese youth's enthusiasm for using annual music listening reports has attracted widespread attention. Media situation theory, particularly applicable in the internet era, offers a novel research framework for understanding this phenomenon: youth usage of music annual reports reshapes personal scenes, transforming backstage behavioral traces into frontstage displays. This enables latent social identity characteristics to transcend spatial-

temporal constraints and behavioral limitations through implicit expression via dramatic data, while simultaneously stimulating users' sense of gaming experience, desire to share, and sense of identification—ultimately inducing behavioral and cognitive changes. Consequently, music annual reports, exemplified by NetEase Cloud Music, have become a new focal point of public discourse each year-end.

Keywords: Media Situation Theory; Music Annual Report; Scene Construction; Behavioral Change

At the end of 2021, major platforms including NetEase Cloud Music, Weibo, Taobao, and Douban released their personalized annual reports. These reports comprehensively present users' year-long platform usage traces through big data and artificial intelligence, visualized via data visualization techniques. Among them, NetEase Cloud Music's annual listening report repeatedly became a trending topic, evolving into a year-end internet meme that gained renewed traction through secondary creation and dissemination.

1. NetEase Cloud Music Annual Report and Media Situation Theory

NetEase Cloud Music first launched its annual listening report campaign in early 2018, which received an enthusiastic response and created possibilities for an entirely new shared scene. With the rise of self-presentation trends on social platforms, various apps subsequently introduced annual report campaigns, displaying users' backstage usage traces as frontstage behaviors. In the context of music annual report usage, generating and sharing one's annual listening report at year-end has emerged as a novel online media ritual among young netizens. From the perspective of media situation theory, we can better comprehend the role of music as a special scene within the annual report usage frenzy, as well as the motivations behind users' behaviors of using, forwarding, and creating derivative content.

Meyrowitz argues that electronic media usage influences audiences' social behaviors [9]. This influence stems from audiences' use of electronic media, which shifts their physical scenes to information scenes when performing social behaviors, with three scene variables coming into play [1]. Changes in scenes lead audiences to develop new perceptions of their roles, corresponding behaviors, and cognition.

[Figure 1: see original paper] The Mechanism of Electronic Media in Media Situation Theory

1.1 Scene Variable One: The Introduction of a Special Cloud-Based Scenario

In media situation theory, the venues where audiences perform behaviors are identified as “physical scenes” and “information scenes.” The intervention of

electronic media directly affects audiences' "information scenes," substantially increasing the frequency of behaviors occurring within these scenes. First, the uniqueness of music scenes lies in their accompanying and compatible nature—they can occur independently or accompany users' work and entertainment scenarios. Consequently, the model of one scene corresponding to one behavior is broken, and behavioral traces become ambiguous reflections of scenes. Second, users' behavior of generating and sharing annual listening reports transforms their private domains into public expression within information scenes. Here, the private domain can be understood as users' physical scenes of life and work, thereby completing the migration process from physical scenes to information scenes.

1.2 Scene Variable Two: Increased Discrepancy Between Backstage and Frontstage Behaviors

The function of electronic media to display or conceal user information amplifies the difference between users' frontstage and backstage presentations. In music scenes, when a user's music scenario exists independently with listening as the sole purpose, frontstage behaviors emerge—these can be considered listening traces determined by their genuine music preferences and habits. When users employ music software in composite scenarios such as work or study, or driven by purposes other than personal preference, the resulting usage traces do not reflect frontstage behaviors but rather backstage behaviors. As the discrepancy between frontstage and backstage behaviors increases, the accuracy of using big data to predict user preferences based on usage traces decreases, generating certain dramatic data or conclusions.

1.3 Scene Variable Three: Strengthened Association Between Cloud Scenarios and Offline Geography

The inherent concealment of cloud scenarios means that the external characteristics of audiences' social identities are not directly exposed. However, as the younger generation's desire for authentic "self-presentation" online strengthens, the connection between their cloud scenarios and physical location characteristics gradually intensifies. This strengthened connection reduces the concealment of their geographic information. When users perceive this association, the diminished concealment allows them to glimpse certain features of physical scenes within cloud scenarios, generating exploratory desires and a sense of playfulness that alters their communication behaviors. For instance, in music scenes, when users browse their annual music reports, they pay special attention to data with high repetition or frequency—when such data does not align with their frontstage behaviors, it reveals backstage behaviors in composite scenarios—prompting users to recall other offline scenarios when using the music software, and to gametically trace and explore this data.

2. Research Questions

Based on the above discussion, this paper takes NetEase Cloud Music's annual report as a case study to investigate the following specific questions:

First, why are young people enthusiastic about using annual music reports? Does the music scene have other special functions?

Second, how do young users' gender and geographic location influence their cognitive attitudes?

Third, what significance does the behavior of using annual listening reports hold for users themselves, and what issues should be noted?

3. Research Design

3.1 Research Methods

This study employs a mixed-methods approach combining qualitative and quantitative research, using the usage behaviors and motivations of young people using NetEase Cloud Music's annual report as a case study. Data were collected through semi-structured interviews and online questionnaires. The online questionnaire was distributed via Wenjuanxing platform, with data validation and analysis conducted using SPSS software. In-depth interviews were conducted through offline face-to-face discussions and online WeChat voice and text tools.

The rationale for combining in-depth interviews and questionnaires is as follows. First, in-depth interviews focus on exploring interviewees' psychological changes, behavioral intentions, emotional transformations, nuanced feelings about generating and sharing reports, and psychological motivations for sharing content [5], whereas questionnaires focus on recording actual behavioral data and comparing differences in platform usage experiences. Second, due to pandemic-related constraints, sample collection faced difficulties. The online questionnaire had a relatively small sample size; to ensure objectivity of results as much as possible, in-depth interviews were used as a supplementary method. Finally, NetEase Cloud Music's annual music report triggered a phenomenon-level dissemination behavior at the end of 2021, indicating widespread user recognition and thus possessing typical representativeness.

3.2 Sample Selection and Composition

According to iResearch data, NetEase Cloud Music's female users account for 54.74%, slightly higher than male users at 45.26% [2]; age is concentrated under 35, generally skewing younger with youth as the primary group. Usage is concentrated in first- and second-tier cities. While user numbers in some first-tier cities are exceptionally high, distribution in other cities is relatively uniform.

Since gender ratio could not be controlled during questionnaire distribution, the interview segment consciously maintained a male-to-female ratio of 9:11,

with interviewees being young professionals and students. Simultaneously, considering the investigation of geographic factors, youth groups from third- and fourth-tier cities were also included in the interview scope. Ultimately, 125 valid questionnaires were collected online, with 20 in-depth interview subjects.

Interview Subject Sampling Criteria Table

Interview Subject Information Statistics Table

4. Research Conclusions and Discussion

4.1 Scale Reliability and Validity Analysis

First, reliability analysis of the scale was conducted. Analysis of the online questionnaire sample yielded the results shown in . The α coefficient ranges from 0 to 1, and the α values for all three scales exceeded 0.85, indicating good reliability and high internal consistency and stability.

Scale Reliability Test

- Youth users' positive experience of NetEase Cloud Music annual report
- Users' trust in NetEase Cloud Music report data
- Real influence of NetEase Cloud Music annual report on users' lives

Second, validity testing was conducted. Analysis of the online questionnaire sample yielded the results shown in . The KMO value ranges from 0 to 1, with values closer to 1 indicating better validity. The KMO value for this questionnaire was 0.868, indicating good validity.

Scale Validity Test

- Kaiser-Meyer-Olkin measure of sampling adequacy

4.2 Conclusions and Analysis

Based on SPSS analysis results from the online questionnaire and interview records from 20 samples as general patterns, while considering factors such as age, permanent residence, and gender, typical cases S1, S4, S13, and S18 were selected for descriptive analysis of their behaviors and attitudes before presenting conclusions:

4.2.1 Conclusions and Analysis of Question One

- 1) The motivation for young users (specifically NetEase Cloud Music users) to enthusiastically generate and share their annual listening reports lies in, under the precondition of willingness to self-present, their curiosity about tracing abnormal data, and the dramatic and entertaining nature of report data interpreting users' backstage usage traces as frontstage behaviors.

Since the first question addresses specific content rather than attitudes and patterns, it is primarily supported by in-depth interview results. Based on user

behavior data, with “generate and share” respondents as the main reference, typical responses were selected:

Interviewee S1 stated: “After generating it, I found my artist of the year was actually English listening practice. I thought it was interesting and forwarded it.” S4 said: “I shared my music soul age, which was actually 70 years old, just because I listened to more classical music...” S13 noted: “I shared the part about listening to music latest—until 4 a.m.... I commented underneath, ‘Not because I like listening, but because I need some sound when working late at night’...” S18 expressed: “I just wanted to complain that my artist of the year was still Japanese listening practice. Recalling that period makes me uncomfortable...”

Overall, among “generate and share” respondents, keywords for their behavioral motivations included “interesting,” “ridiculous,” and “curious.” Based on the analysis of the three scenario variables in the first section, most respondents particularly focused on the results of their backstage behavioral traces being interpreted as frontstage behaviors by data. One specifically mentioned: “It (the shared content) reminds me of the feelings and scenes at that time, and I can’t help but want to complain to others...” Additionally, it should be noted that these “weird” yet “interesting” data and conclusions most effectively spark users’ curiosity, prompting them to recall scenes at the time and share; according to feedback on interviewees’ shared information, such content also most effectively resonates with and interests others, triggering secondary forwarding and generation behaviors.

Meanwhile, since some respondents did not generate reports, this paper proposes the following hypothetical factors influencing whether young and middle-aged users generate music reports: gamification of the report; personal social impulse; awareness of self-uniqueness development; report practicality; desire for attention. Among these, and pertain to report experience dimensions, while , , and derive from user psychological dimensions.

Based on questionnaire sample analysis, results are shown in :

Difference Test on Variables Related to Experience and Self-Consciousness Between Willingness to Generate Reports

- Is an interesting game
- Can interact with familiar friends
- Discover one’s unique music preferences
- Reference others’ playlists
- Display interesting parts on public platforms

According to , the two factors of “strong-tie interaction” and “referencing playlists” have P-values (significance) greater than 0.05, thus showing no significant difference. Further conclusions based on t-values indicate that those willing to generate reports place greater emphasis on the gaming experience of reports and value self-worth manifestation, exhibiting characteristics of being willing to self-display in public settings.

4.2.2 Conclusions and Analysis of Question Two

- 2) Young users of different genders hold relatively positive attitudes toward the trustworthiness of NetEase Cloud Music's data, with minimal gender differences; however, the discrepancy between frontstage and backstage behaviors is relatively smaller for males than for females.
- (1) As shown in , when rating trust in NetEase Cloud Music report data on a scale of 1-7 (corresponding to strongly disagree to strongly agree), the average score for positive scales shows no significant gender difference, with an overall average of 4.91, exceeding 3.5 and leaning toward "strongly agree." Therefore, it can be inferred that young and middle-aged users have relatively high trust in NetEase Cloud Music's annual listening report data, demonstrating a positive attitude.

Gender Difference Analysis in Report Data Trustworthiness (Mean Values)

- Data relatively objectively displays behavior
 - Data satisfies usage needs
 - Data interpretation accuracy
- (2) From the interview process, S1, S4, and S18 all generated and forwarded reports. Comparing S1, S4, and S18 reveals that, disregarding gender factors, differences in city tier of permanent residence have minimal impact on attitudes. However, factors such as age and occupation may influence their willingness to use the function next year. S1 expressed willingness to continue using the annual report function next year, while S4 and S18 indicated they might not use it next year. S4's reason was that it could not satisfy their purpose of accurately reflecting their listening preferences; S18's reason was that it could easily trigger unpleasant memories, thus refusing further use.

4.2.3 Conclusions and Analysis of Question Three

- 3) Users' engagement with listening reports essentially constitutes mirror self-reflection, fulfilling entertainment needs while completing self-cognition; simultaneously, sharing behavior performs social relationship management. The following issues should be noted during these behaviors: the viral dissemination generated by report sharing may cause screen-flooding phenomena, encroaching on other public resources; individual users may easily indulge in virtual performative states, blurring boundaries between online and offline realities, requiring appropriate clarity and rationality.

One point in this question requires clarification: users do not reject and are even willing to present their authentic selves on social platforms. In interviews, S13 expressed viewpoints such as "Only authenticity has real feeling" and "Sharing pretentious content might seem ridiculous to others"; S18 stated: "I hope others know what kind of person I am" and "Performing is really tiring and meaningless."

Meanwhile, users' self-reflection awareness emerges during the process of tracing abnormal data. For example, interviewee S13 discovered in their report that their "artist of the year" was actually "Guo Degang" (a crosstalk performer). Amidst surprise, they recalled their life in August, realizing that work was particularly busy then, and listening to crosstalk while showering became their only relaxation method. S4 noted: "This year I wrote reviews for several dramas on Douban, and their theme songs are all on this list," but during the interview, she mentioned her favorite artist was actually Cui Jian. "My annual playlist repeats those few songs, not because I particularly like them, but because I listen to music on the subway daily without using mobile data, so it's always local songs," S18 recalled regarding their usage traces.

This demonstrates that, as shown in , what big data records is always users' platform behavioral trajectories, pushing required song types based on frequency and duration while ignoring users' behavioral motivations. Therefore, NetEase Cloud Music's listening report is not only users' "life diary" but also the "user demand visualization" result for platform profit.

Information Collection Dimensions of "NetEase Cloud Music Annual Report" (End-of-2021 Version)

- Music genre, number of artist types, various proportions
- Four-season music style: rhythm changes of listened songs across four seasons
- Latest listening time period, number of online users
- Most looped single song, quantity, time
- Listening creation time span
- VIP exclusive listening records, time, number of songs
- Music genre and artist comparison, special notes
- Most niche song
- Music soul age, keywords
- Annual songs, first listening time, playlists, artists
- Listening keywords

On the other hand, this misalignment between backstage usage traces and frontstage interpretation further stimulates users' participation interest and secondary dissemination, creating public opinion focal points. The discrepancy between cognition and fact generates a psychological gaming pleasure, consequently spawning a series of derivative topics such as NetEase Cloud Music annual report memes, report displays, and "working-class playlists," making NetEase Cloud Music's reports prone to screen-flooding phenomena.

5. Research Summary

Overall, NetEase Cloud Music APP's personal music annual report represents a highly successful marketing campaign. From the perspective of media situations, the unique accompanying and compatible nature of music scenes allows music usage behaviors to integrate into most life scenarios, thus creating am-

ambiguous meanings for appropriate behaviors within situations. Consequently, annual listening reports reflect not users' music preferences and attributes but rather the online-ization of personal life, requiring self-interpretation and recall to establish causal relationships, thereby acquiring gaming qualities and emotional significance that trigger viral dissemination behaviors.

Therefore, from the platform's standpoint, utilizing big data to record users' behavioral habits, usage trajectories, frequency, and duration can maximally satisfy user needs and generate greater commercial value. However, for users, it is necessary to maintain rationality and vigilance, keeping clear boundaries between online and offline realities, improving digital media literacy, and forming correct self-cognition. For platforms, attention must be paid to controlling dissemination intensity to avoid screen-flooding phenomena encroaching on public resources.

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Note: Figure translations are in progress. See original paper for figures.

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