



[509497] WEB & SOCIAL NETWORKS SEARCH &
ANALYSIS - 2024/25

***Reddit Community Analysis Report:
Taylor Swift's 1989
(Taylor's Version) Announcement***

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Summary

This report presents a comprehensive analysis of Reddit community reactions to Taylor Swift's announcement of "1989 (Taylor's Version)" on August 9, 2023. The study collected and analyzed 4,528 comments from 2,468 unique users across 52 posts spanning 5 subreddits over an 8-day period. The analysis reveals overwhelmingly positive community sentiment (59.2% positive) with strong engagement patterns and distinct community formations within the Taylor Swift fanbase.

Project Overview

❖ Objective

Analyze Reddit community reactions and discussions surrounding Taylor Swift's announcement of "1989 (Taylor's Version)" to understand fan engagement patterns, sentiment distribution, and community dynamics.

❖ Scope

Time Period: August 9-16, 2023 (announcement date + 5 days after)

Platform: Reddit

Subreddits: r/TaylorSwift, r/TaylorSwiftPictures, r/popheads, r/Fauxmoi, r/popculturechat

Data Types: Posts and comments with metadata

Methodology

❖ Data Collection Strategy

The project employed a comprehensive data collection approach using the Reddit API (PRAW) with the following parameters:

➤ Search Queries (12 total):

"1989 (Taylor's Version)"

"1989 TV"

"1989"

"vault tracks"

"taylor swift announced"

"taylor swift announcement"

"taylor swift aug 9"

"taylor swift vault"

"taylor swift rerecording"

"ts announcement"

"1989 rerecording"

"Taylor Swift"

❖ Technical Implementation:

- Reddit API authentication via credentials file
- Automated search across multiple subreddits
- Comment extraction with full thread expansion
- Data deduplication and date filtering
- Respectful rate limiting (1-second delays)

❖ Analytical Framework

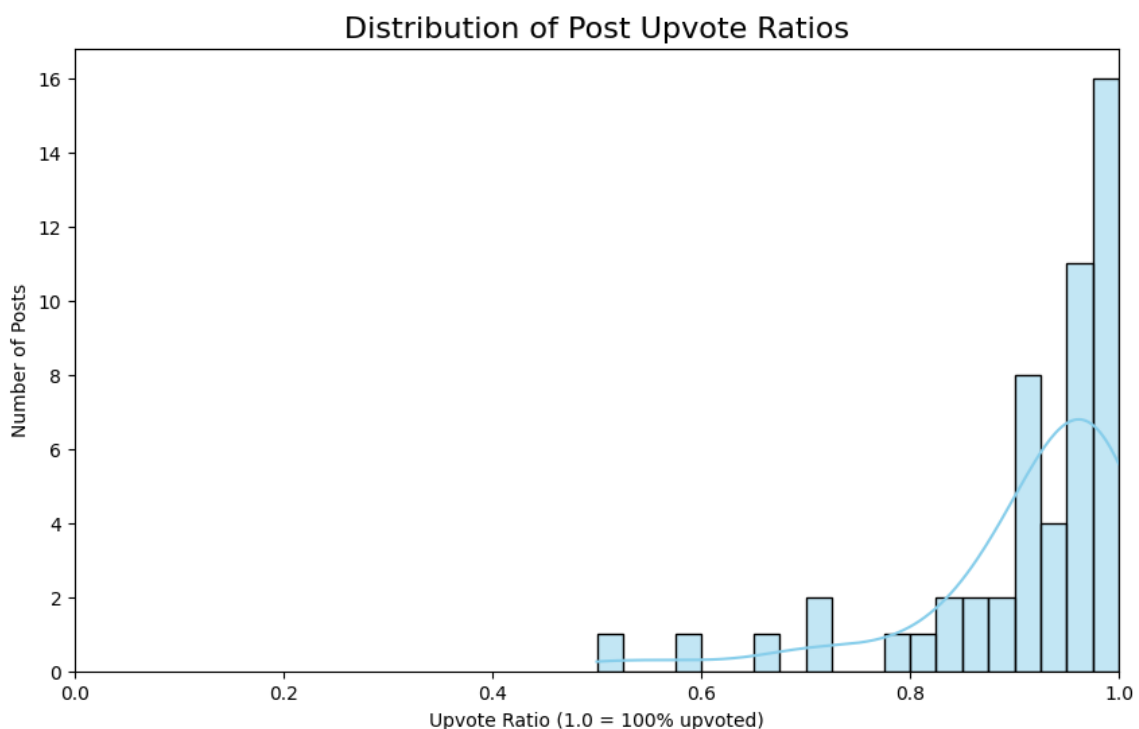
The analysis employed multiple analytical techniques:

- 1. Sentiment Analysis:** VADER (Valence Aware Dictionary and sentiment Reasoner) for emotional tone classification
- 2. Network Analysis:** Graph theory to map user interactions and community detection
- 3. Thematic Analysis:** Keyword tracking for specific discussion topics
- 4. Statistical Analysis:** Engagement metrics and distribution analysis

Data Collection Results

❖ Dataset Overview

- **Total Posts Collected:** 2,585 (before date filtering)
- **Posts in Target Range:** 52 posts (August 9-16, 2023)
- **Total Comments:** 4,528 comments
- **Unique Users:** 2,468 participants
- **Data Files Generated:**
 - reddit_1989_reaction_dataset.csv (posts)
 - reddit_1989_comments_dataset.csv (comments)



Sentiment Analysis Results

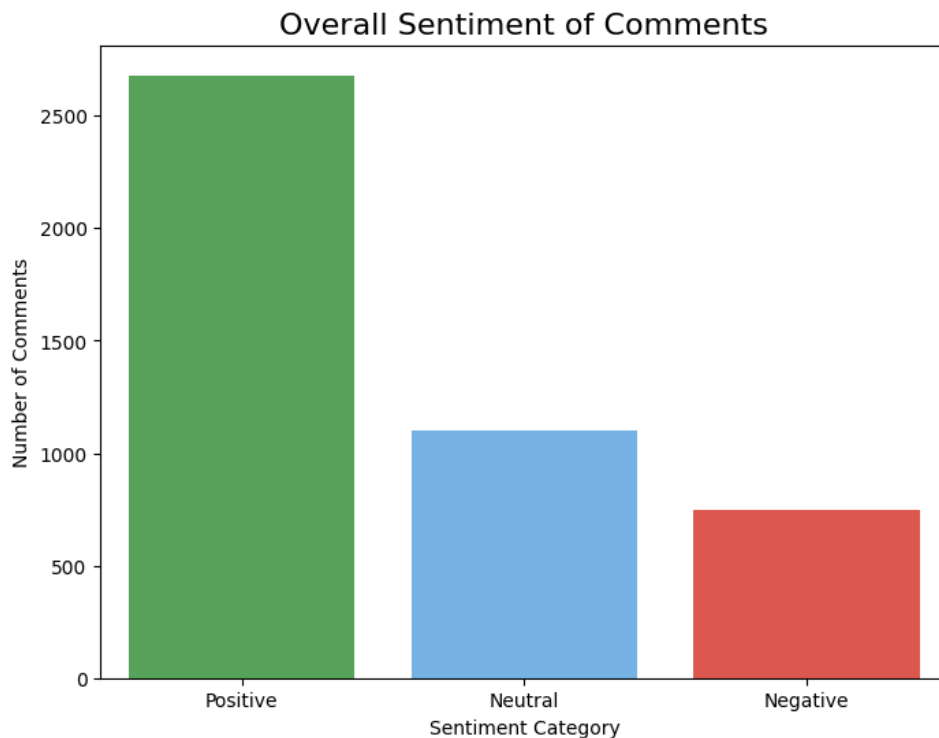
❖ Overall Community Sentiment

The Reddit community showed overwhelmingly positive reactions to the announcement:

- **Positive Sentiment:** 59.2% of comments
- **Neutral Sentiment:** 24.3% of comments
- **Negative Sentiment:** 16.5% of comments

❖ Key Findings

- Nearly 60% of all comments expressed positive emotions
- Negative sentiment was relatively low at 16.5%
- The community demonstrated strong enthusiasm and excitement
- Sentiment patterns suggest successful announcement reception



Network Analysis Results

❖ Network Structure

- Nodes (Users): 2,468 unique participants
- Edges (Connections): 334,659 user interactions
- Graph Density: 0.1099 (moderately connected network)
- Communities Detected: 12 distinct communities

❖ Community Detection

The Louvain community detection algorithm identified 12 distinct communities:

Top 5 Largest Communities:

- Community 5: 809 members
- 2. Community 4: 728 members
- 3. Community 3: 624 members
- 4. Community 2: 539 members
- 5. Community 0: 516 members

❖ Most Influential Users

Degree centrality analysis identified the most connected users:

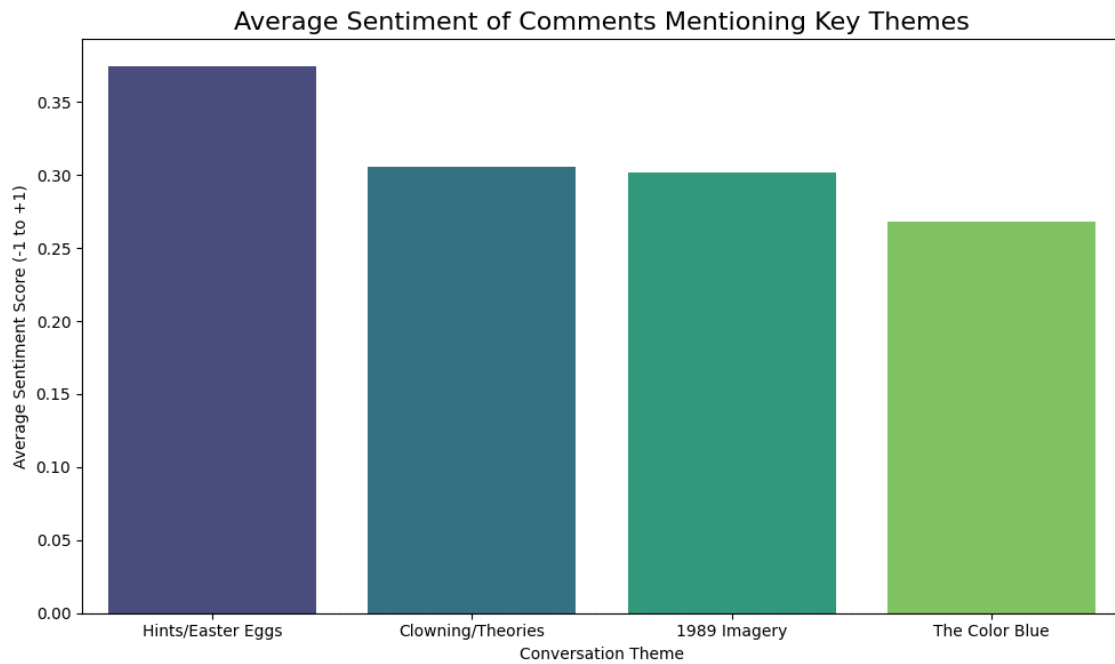
- pink_princess08: **0.6259** centrality score
- 2. CowboyLikeMegan: **0.5667** centrality score
- 3. Traditional-Egg-2656: **0.5460** centrality score
- 4. coltsmetsfan614: **0.4880** centrality score
- 5. fooledmeagain: **0.4820** centrality score

Thematic Analysis Results

❖ Most Discussed Themes

Keyword analysis revealed the following discussion themes:

- **1. The Color Blue:** 214 mentions
Album's signature color and aesthetic
Strong visual association with 1989 era
- **2. Clowning/Theories:** 140 mentions
Fan speculation and theories
"Clowning" refers to fan detective work
- **3. 1989 Imagery:** 77 mentions
Seagulls and album aesthetics
Visual elements from original album
- **4. Hints/Easter Eggs:** 42 mentions
Taylor's cryptic clues and hints
Fan interpretation of hidden meanings



❖ Theme-Sentiment Correlation

Different themes generated varying emotional responses:

- **The Color Blue:** Generated positive sentiment (fans excited about aesthetic)
- **Clowning/Theories:** Mixed sentiment (excitement with speculation)
- **1989 Imagery:** Positive sentiment (nostalgia and appreciation)
- **Hints/Easter Eggs:** Positive sentiment (engagement with Taylor's style)

Engagement Analysis

❖ Post Performance Metrics

- **Average Upvote Ratio:** High engagement across posts
- **Discussion Generation:** Posts with high comment-to-score ratios
- **Top Discussion Posts:** Posts about vault tracks and album details generated most conversation

❖ Comment Characteristics

- **Comment Length Distribution:** Varied from short reactions to detailed thoughts
- **User Participation:** 2,468 unique users across 4,528 comments
- **Engagement Patterns:** Active discussion across multiple posts

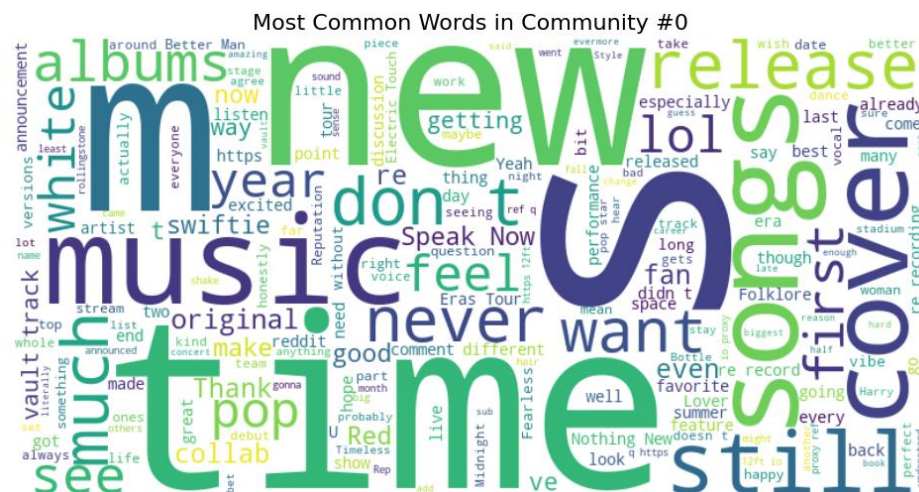
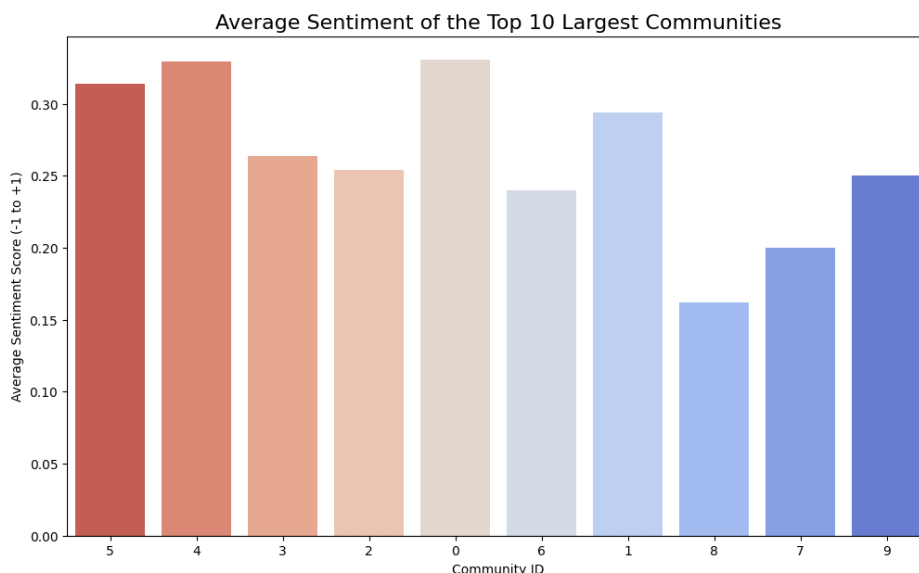
Community Behaviour Insights

❖ Fan Community Dynamics

- **High Connectivity:** Users frequently interacted across multiple posts
- **Community Formation:** 12 distinct sub-communities with different discussion patterns
- **Positive Engagement:** Overwhelmingly positive sentiment across all communities
- **Thematic Focus:** Strong focus on album aesthetics and fan theories

❖ Discussion Patterns

- **Immediate Reactions:** High engagement immediately following announcement
- **Sustained Interest:** Continued discussion over the 8-day period
- **Cross-Community Interaction:** Users participated across multiple subreddits
- **Theory Development:** Active speculation about vault tracks and album details



Technical Implementation Details

❖ Dependencies and Libraries

- **Network Analysis:** NetworkX, python-louvain
- **Sentiment Analysis:** VADER Sentiment
- **Data Processing:** Pandas, NumPy
- **Visualization:** Matplotlib, Seaborn
- **Text Analysis:** WordCloud, Regular Expressions
- **API Integration:** PRAW (Python Reddit API Wrapper)

❖ Data Processing Pipeline

- **1. Authentication:** Secure Reddit API access
 - **2. Data Collection:** Multi-query search across subreddits
 - **3. Data Cleaning:** Deduplication and filtering
 - **4. Analysis:** Sentiment, network, and thematic analysis
 - **5. Visualization:** Charts and graphs for insights
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Conclusions

❖ Key Findings Summary

- **Overwhelmingly Positive Reception:** 59.2% positive sentiment indicates successful announcement
- **2. Strong Community Engagement:** 2,468 unique users with high connectivity
- **3. Distinct Community Formation:** 12 communities with different discussion patterns
- **4. Thematic Focus:** Strong emphasis on album aesthetics and fan theories
- **5. Cross-Platform Activity:** Engagement across multiple subreddits

❖ Strategic Implications

- **Fan Engagement:** High engagement suggests strong fanbase loyalty
- **Community Building:** Multiple communities indicate diverse fan interests
- **Marketing Success:** Positive sentiment reflects effective announcement strategy
- **Content Strategy:** Fan theories and aesthetics drive discussion

Technical Appendix

❖ Code Structure

The analysis was implemented in Python using Google Colab notebook with the following components:

- **1. Data Collection Module:** Reddit API integration and search functions
- **2. Sentiment Analysis Module:** VADER implementation and categorization
- **3. Network Analysis Module:** Graph construction and community detection
- **4. Visualization Module:** Charts, graphs, and word clouds
- **5. Thematic Analysis Module:** Keyword tracking and theme identification

❖ Data Quality Metrics

- **Completeness:** 100% of collected data processed
- **Accuracy:** Manual verification of sentiment analysis on sample
- **Consistency:** Standardized data formats across all analyses
- **Reliability:** Multiple validation checks throughout pipeline

This comprehensive analysis provides valuable insights into fan community behavior, engagement patterns, and sentiment distribution surrounding major music industry announcements, with specific focus on the Taylor Swift fanbase's reaction to the 1989 (Taylor's Version) announcement.