



Age-based lexical and semantic patterns in social media: a comparative study of generational differences

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ABSTRACT

This study investigates how age influences lexical and semantic patterns in social media communication. Analyzing data from Twitter, Facebook, and Instagram, the research focuses on four age groups: teenagers (13-19), young adults (20-35), middle-aged adults (36-55), and older adults (56+). Results reveal that teenagers and young adults exhibit more informal, innovative language use, including slang and emojis, while older adults tend to stick to formal and conventional language. This study provides insights into how language evolves across age groups in digital spaces.

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Ijtimoiy tarmoqlarda yoshga asoslangan leksik va semantik naqshlar: avlodlar farqlarini qiyosiy o'rganish

ANNOTATSIYA

Kalit so'zlar:

leksik variatsiya,
semantik o'zgarish,
ijtimoiy tarmoq tili,
yoshga asoslangan lingvistik
xususiyatlar,
avlodlararo farqlar,
sotsiolingvistika,
raqamli muloqot.

Ushbu tadqiqot yoshning ijtimoiy tarmoqlardagi muloqotining leksik va semantik xususiyatlariga ta'sirini o'rganadi. Twitter, Facebook va Instagram ma'lumotlari asosida to'rt yosh guruhining yozishmalarini tahlil qilish orqali tadqiqot o'smirlar (13-19 yosh), yosh kattalar (20-35 yosh), o'rta yoshdagi kattalar (36-55 yosh) va kattalar (56+ yosh) kabi guruhlarni qamrab oladi. Tadqiqot natijalari shuni ko'rsatadiki, o'smirlar va yosh kattalar ko'proq norasmiy, yangilangan tilni ishlatib, slang va emojilarni qo'llaydi, ayni paytda kattalar rasmiy va an'anaviy tilga moyil bo'ladi. Ushbu tadqiqot yosh guruhlari bo'yicha tilning raqamli makonlardagi rivojlanish tendensiyalarini ochib beradi.

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Возрастные лексические и семантические закономерности в социальных сетях: сравнительное исследование различий между поколениями

АННОТАЦИЯ

Ключевые слова:

лексическое разнообразие, семантические изменения, язык социальных сетей, языковые особенности по возрастным группам, межпоколенческие различия, социолингвистика и цифровая коммуникация.

Данное исследование рассматривает влияние возраста на лексические и семантические особенности общения в социальных сетях. Анализируя данные из Twitter, Facebook и Instagram, исследование фокусируется на четырех возрастных группах: подростки (13–19 лет), молодые взрослые (20–35 лет), люди среднего возраста (36–55 лет) и пожилые (56+ лет). Результаты показывают, что подростки и молодые взрослые чаще используют неформальный и инновационный язык, включая сленг и эмодзи, тогда как пожилые люди, как правило, придерживаются более формального и традиционного стиля общения. Это исследование помогает понять, как язык изменяется в зависимости от возраста в цифровых пространствах.

INTRODUCTION

Social media has significantly altered how people communicate, making it a vital area of sociolinguistic research. Various studies suggest that age plays a significant role in shaping language use, with younger generations often at the forefront of linguistic innovation (Eckert, 1988). While older adults maintain more traditional language forms, younger users tend to adopt new slang, abbreviations, and emojis, often reflecting a desire to create a group identity and distinguish themselves from older generations (Sharma & Dodsworth, 2020). However, the relationship between age and lexical-semantic variation on social media has not been fully explored. This study aims to fill this gap by analysing the linguistic behaviour of four distinct age groups on platforms like Twitter, Facebook, and Instagram.

Research Objectives are to examine lexical and semantic differences in social media communication across age groups; to investigate how age influences linguistic innovation and semantic shifts; and to explore the practical applications of these findings for marketing, education, and sociolinguistic research.

METHODS

2.1. Data Collection:

Data was gathered from Twitter, Facebook, and Instagram using API tools. The dataset included a total of 1.5 million posts, categorized by age group:

Teenagers (13-19)

Young Adults (20-35)

Middle-aged Adults (36-55)

Older Adults (56+)

Preprocessing:

The collected data was cleaned and pre-processed to standardize and focus on relevant linguistic elements. Steps included:

Tokenization and Lemmatization: Words were broken down into base forms to ensure consistency.

Text Filtering: Non-linguistic elements like URLs, hashtags, and advertisements were removed.

Language Filtering: Only English-language posts were retained for consistency.

2.2. Analytical Framework:

The analysis utilized several methods:

1. Lexical Analysis: The frequency of words, slang, abbreviations, and emojis were analyzed across age groups.

2. Semantic Analysis: Word embeddings (e.g., Word2Vec, BERT) were used to track semantic shifts in word meanings.

3. Sentiment Analysis: Sentiment analysis was performed using LIWC (Linguistic Inquiry and Word Count) software to evaluate the emotional tones of posts.

4. Statistical Analysis: Chi-square tests and regression models were used to assess the significance of the observed differences.

RESULTS

3.1. Lexical Variations:

Younger users were more inclined to use slang, abbreviations, and emojis. Terms like “vibe”, “lit”, and “no cap” were common in the posts of teenagers and young adults. In contrast, older adults preferred more conventional language, using words like “excellent” instead of slang terms (Eckert, 1988). This shows a clear lexical divergence between younger and older age groups.

3.2. Semantic Shifts:

Semantic shifts were particularly noticeable among younger users. For example, “fire” was used to mean “great” or “cool” instead of its literal meaning related to flames. In contrast, older adults continued to use words in their traditional sense, showing less variation in meaning (Sharma & Dodsworth, 2020). This illustrates the age-related evolution of word usage across platforms.

3.3. Sentiment Patterns:

Teenagers and young adults exhibited more extreme sentiments, often using emotional language and exclamation points to convey excitement or frustration. Older adults, however, displayed more neutral sentiments in their posts, avoiding over-expressive language (Baron, 2010).

DISCUSSION

4.1. Interpretation of Findings:

The findings confirm that age influences language use on social media. Younger users are more likely to innovate linguistically, a trend that has been observed in previous research (Eckert, 1988). Their use of slang and emojis serves as a tool for group identity and differentiation from older generations (Sharma & Dodsworth, 2020). This trend also supports the notion that younger users are more adaptable to linguistic changes (Sumner et al., 2012). Older adults, on the other hand, tend to adhere to more formal, traditional language norms. This aligns with theories suggesting that older generations are more conservative in their linguistic behaviour (Davies, 2013). The results suggest that social media platforms, being spaces for social interaction, allow younger generations to experiment with language, while older individuals maintain a more conservative approach (Baron, 2010).

4.2. Implications for Sociolinguistics:

This study highlights the role of age in sociolinguistic variation. It confirms that language use on social media can serve as an indicator of social identity, with younger users embracing linguistic change while older users resist it. The study also underscores the importance of considering age-based differences in digital communication research (Milroy & Milroy, 1985).

4.3. Practical Applications:

1. Marketing: Understanding the linguistic preferences of different age groups can help marketers develop targeted advertising strategies. For instance, younger audiences may respond better to informal language, emojis, and pop culture references, while older audiences might prefer more formal, clear language (Pennebaker & King, 1999).

2. Education: This study suggests that digital literacy programs should address the generational differences in language use on social media. Understanding how language evolves across age groups is crucial for developing effective communication strategies for both personal and professional contexts (Yarkoni, 2010).

3. Digital Communication: Social media platforms can be designed to cater to the diverse linguistic preferences of different age groups, improving user experience and interaction (Labov, 1972).

CONCLUSION

This study provides valuable insights into how age shapes lexical and semantic patterns in social media communication. Younger users are more likely to innovate linguistically and adopt new meanings for words, while older adults maintain traditional language use. These findings have important implications for marketing, education, and digital communication, offering practical applications for understanding and leveraging age-related linguistic differences (Tausczik & Pennebaker, 2010).

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