

Methodological Approaches to Studying Gender Aspects of Speech Activities in Virtual Environments

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Abstract. *This article analyzes one of the current topical issues of today: methodological approaches to studying gender aspects of speech behavior. Also, the following approaches are considered: Interdisciplinary approach, quantitative methods, qualitative methods, experimental methods, ethical aspects of research. This helps to determine how different conditions affect the communication style of men and women.*

Key words: *gender, speech behavior, attitude outcomes, methodological approach, virtual reality, environment.*

Introduction. Studying the gender aspects of speech behavior requires reliance on theoretical models that account for social, cultural, and psychological factors. One such model is the theory of social constructivism, which asserts that gender roles and stereotypes are formed through the process of interaction. It is also necessary to consider communication theories, such as the theory of gender communication differences, which states that men and women use language differently depending on the context.[1] Qualitative research methods, such as interviews and focus groups, allow for a deeper understanding of how users perceive and interpret speech behaviors. For example, it is possible to conduct focus groups with participants of different genders to discuss their experiences on social networks. This helps to identify the characteristics of gender role and stereotype perception in the virtual environment.

Quantitative methods, such as questionnaires and content analysis, enable the collection of statistical data on the speech behaviors of men and women on the Internet. For example, it is possible to develop a questionnaire containing questions about preferences for using various platforms (such as Facebook, Instagram) and communication styles (formal/informal).

Analysis of literature related to the topic. Content analysis can be used to examine the texts of messages, comments, and posts on social networks to identify differences in language choices, discussion topics, and emotional tones. Experimental methods allow for controlled studies aimed at identifying causal relationships between gender and speech behaviors. For example, it is possible to create an experimental situation in which participants interact in a virtual environment under predetermined conditions (such as anonymity or openness). This helps to determine how different conditions affect the communication styles of men and women.

In the modern world, the virtual environment has become an integral part of human communication. Social networks, forums, online games, and other digital platforms create a space for interaction where traditional gender roles and norms of speech behavior can change or take on new forms. The study of gender aspects of speech behavior in the virtual environment represents a relevant and promising area of research that requires a comprehensive methodological approach. This includes:

1. Interdisciplinary approach. The study of gender aspects of speech behavior in a virtual environment requires the integration of methods and theories from various scientific disciplines. These include: 1) linguistics (analysis of language features, stylistic devices, and speech strategies) [2]; 2) sociology (the study of social norms, roles, and interactions in online communities), [3] 3) psychology (the study of cognitive processes, motivation, and identity in virtual space); 4) anthropology (analysis of the cultural aspects of online communication and the formation of virtual communities); 5) computer science (the use of big data analysis and machine learning methods for processing textual data).

2. Quantitative methods. Quantitative methods allow for the identification of statistically significant features in the speech behavior of virtual environment users:

2.1. Content Analysis. Systematically study text messages to determine the frequency of use of specific linguistic constructions, emoticons, hashtags, and other elements of online communication.

2.2. Corpus Linguistics. Creation and analysis of specialized text corpora from various online platforms to study gender characteristics of vocabulary, grammar, and stylistics.

2.3. Network analysis. Study of social connections and forms of interaction between users of different genders in virtual communities.

3. Qualitative methods. Qualitative methods allow for a deeper understanding of the context and motivation of speech behavior in a virtual environment:

3.1. Ethnographic Observation. Long-term immersion of the researcher in the studied online community for a detailed description of cultural communication norms and practices.

3.2. Interviews. Conduct interviews with virtual platform users to identify their subjective experiences and understand the gender aspects of online communication.

3.3. Discourse analysis. Studying language as a social practice, focusing on how gender identifiers are constructed and reproduced in virtual speech.

4. Experimental methods. The experimental approach allows for the study of causal relationships between gender factors and speech behaviors. This includes:

4.1. Online experiments. Create controlled virtual environments to study the influence of various factors (such as anonymity or visual cues) on gender aspects of speech behavior.

5. Ethical aspects of the research. When studying gender aspects of speech behavior in a virtual environment, it is necessary to consider a number of ethical issues. These include privacy and protection of users' personal data (1); informed consent of study participants (2); potential impact of the study on the communities being studied (3); consideration of cultural differences and sensitivities regarding gender topics (4).

It should be emphasized that methodological approaches to studying gender aspects of speech behavior in virtual environments must be complex and adaptable. A combination of quantitative, qualitative, and experimental methods provides a multifaceted understanding of how gender influences communication in the digital realm. It is also crucial to consider the dynamic nature of virtual environments and continuously adjust the methodology to accommodate new forms of online interaction.

Research methodology The study utilized observation, questionnaire, and statistical methods.

Analysis and results. Virtual environment is an artificially created digital space that is expanded through computer technologies. This concept encompasses everything from simple online forums to complex virtual and augmented reality technologies and applications.

Virtual reality (VR) is a computer simulation of a 3D environment in which the user can interact in a realistic or physical manner using special electronic devices. VR creates an immersive experience by fully submerging the user in the digital world.

Augmented reality (AR) overlays digital information onto the real world, typically through a smartphone camera or special glasses. AR enhances the perception of reality by adding virtual elements to the physical environment.

Mixed reality (MR) combines elements of VR and AR, allowing virtual objects to interact with the real world in real-time.

Virtual environments are changing how people communicate by creating new forms of social interaction and communities. Immersion in the virtual world can affect the perception of reality, self-identification, and emotional state of users. Current technologies face challenges related to display sizes, latency, and limitations in motion tracking. The use of virtual environments raises issues of privacy, data security, and potential technology misuse.

Prolonged use of VR devices can cause physical discomfort and vision problems. Artificial intelligence is expected to play an increasingly important role in creating more realistic and adaptive virtual environments. Virtual and augmented reality are poised to become an integral part of everyday life, work, and education.

Conclusions and proposals: The virtual environment is a rapidly developing field of technology with enormous potential for transforming various aspects of human activity. As technologies evolve and become integrated into everyday life, it is crucial to continue research on their impact on society, psychology, and culture. Yevgeniy Pyatakov emphasized that "the Internet is a part of our 'virtual' reality, a domain of modern human existence that science has only just begun to explore" [5]. The rapid advancement of technology and its influence on our lives has intensified interest in this topic [6]. Within the framework of studying gender aspects of speech behavior, the following features can be examined:

1. Investigating communication styles. Analyzing messages in online forums or social networks can reveal how men and women use language to present themselves and interact with others.
2. Studying reactions to aggression (a set of individual or collective actions aimed at causing harm). Experiments can demonstrate how men and women respond to aggressive comments in a virtual environment, which helps to understand differences in conflict management strategies.
3. Analyzing emoji usage. Studies indicate that men and women may use emojis differently to express emotions. Examining their usage can provide insights into gender differences in non-verbal communication.

The study of gender aspects of speech behavior in the virtual environment is a promising area of research. Applying various methodological approaches, ranging from qualitative to quantitative and experimental, allows for a deeper understanding of communication dynamics between men and women in the context of digital interaction. This knowledge can be valuable not only for the academic community but also for practitioners in psychology, sociology, and media psychology, as well as platform developers aiming to create more inclusive spaces for communication.

List of used literature:

1. Tannen. You just don't understand: *Women and men in conversation*. – New York: William Morrow & Co., 1990. – Pp. 330. ¹
2. Herring S.C., Stoerger S. Gender and (a)nonymity in computer-mediated communication. In S.Ehrlich, M.Meyerhoff, J. Holmes (Eds.), *The Handbook of Language, Gender, and Sexuality*. John Wiley & Sons. – 2014. – P. 567-586.
3. Van Doorn, N. Digital spaces, material traces: How matter comes to matter in online performances of gender, sexuality and embodiment. *Media, Culture & Society*, 2011. – 33(4), 531-547.
4. Laru J., Järvelä S., Clariana R.B. Supporting collaborative inquiry during a biology field trip with mobile peer-to-peer tools for learning: a case study with K-12 learners. *Interactive Learning Environments*, 2012. – 20(2). – P. 103-117.

5. Мышенкова Е.С. Гендерные и возрастные аспекты использования Интернет [Электронный ресурс] / Е. С. Мышенкова // Флогистон. – Режим доступа: http://flogiston.ru/articles/social/int_gender.
6. https://cyberpsy.ru/articles/gender_internet_communication/