THE USE OF VR TECHNOLOGY IN POLITICAL COMMUNICATION: PROSPECTS AND CHALLENGES IN SHAPING PUBLIC OPINION

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EXTENDED ABSTRACT

Purpose The paper presents the preliminary results of the pilot study and the developed tool, a virtual reality software. The aim is to explore the participatory practices and attitudes of young adults toward implementing technologies in mediatized social communication, including political communication. The authors present their original VR environment and analyze user behavior toward interacting with political candidates and voting in virtual reality. The prospects and challenges associated with the use of immersive tools in shaping public opinion and developing the technology sector, including in Poland, were examined.

Design/methodology/approach The research project is framed by the constructivist paradigm. The following research questions have been formulated: Q1: How does the presence of political candidates in virtual reality (VR) shape the behavior and voting decisions of young adults?; Q2: What attitudes do young adults have toward the presence of political candidates in VR?; Q3: What are the prospects and challenges associated with the use of immersive tools in shaping public opinion and developing the technology sector?. The authors conducted empirical research using data analysis triangulation, investigator triangulation, and methodological triangulation. A mixed-method approach was used – the participatory workshop was supplemented with focus group interviews, overt participant observation, and a survey. The non-probability sample included adult undergraduate students of journalism and social communication at the Jagiellonian University, Poland. The following tools were used: original VR software with avatars of fictional political candidates and 3D objects (a ballot box and voting paper), survey and introductory questionnaires, and a FGI script. Inductive coding of FGI discussion transcripts and responses to open-ended survey questions was performed using MAXQDA software.

Findings The results have provided a deeper understanding of modifications related to the implementation of new technologies in mediatized public life. The preliminary findings of the pilot study have enriched the scientific dialogue with perspectives on shaping public opinion by VR technology. The attitudes and behaviors of young adults toward the presence of political candidates and the possibility of voting in VR have been identified. The outcomes of the study have highlighted the strengths and limitations of the original VR software and have presented perceived opportunities and threats of using immersive technology in political communication. Reflections on immersive media have shown a blurring of boundaries between "non-digital reality–virtual reality" (*see also* Schweiger and Wimmer, 2023), the effect of VR on the familiarization of political behavior (*see also* Weber *et al.*, 2022), the issue of accessibility, the reduction of the distance between "political candidate–user" and

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concurrent concerns about the disinformation, deepfakes, and the loss of naturalness of avatar's speech (*see also* Kroczek and Mühlberger, 2023; Sterna *et al.*, 2019). The results of the study enabled the formulation of guidelines for developers of virtual reality solutions.

Originality/value The findings enabled the creation of guidelines for the ethical and effective application of VR tool features, primarily the ones designed for political communication and potential public opinion formation. The results are even more significant considering more than 171 million VR users worldwide (Kumar, 2025) and the developing virtual reality market. The market value is estimated at USD 16.32 billion in 2024, USD 20.83 billion in 2025, and is projected to reach USD 123.06 billion by 2032 (CAGR of 28.9%) (Fortune Business Insight, 2025) and USD 261.92 billion by 2034 (CAGR of 35.60%) (Precedence Research, 2025). Statista Market Insights (n.d.) argues that the VR software market in Poland is expected to reach 1.2 million users by 2029. The estimated VR usage rate in Poland is 2.7% in 2025 and 3% in 2029. In addition, the project is application-oriented in the social sphere. It concentrates on developing awareness and creating approaches to mediatization (Hepp, 2020; Hepp *et al.*, 2024) and the use of VR technology (Guttentag, 2010) in mediatized political communication. The authors propose their original VR environment as a tool for public opinion and participatory practices studies. Due to the digitalization of public debate, the importance of implementing new technologies in research in this area is recognized. Furthermore, the issue of expected differences in attitudes and behaviors among different age groups was raised during the participatory workshop. This approach creates an opportunity to continue the discussion about the immersion in the VR environment with participants of various ages, such as seniors.

Keywords: *Political immersion, Virtual reality, New technologies, Public opinion, Mediatization of political communication, Political participation*

JEL classification: *D72, D71, O33, O35*

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