

# DIGITAL RESILIENCE IN THE AREA OF HYBRID THREATS: PERCEPTION OF CONCEPTS ASSOCIATED WITH THE UKRAINIAN MILITARY CONFLICT BY GENERATION Z IN SLOVAKIA

Lucia SPÁLOVÁ – Peter MIKULÁŠ



Prof. Mgr. Lucia Spálová, PhD.  
Faculty of Mass Media Communication  
University of Ss. Cyril and Methodius  
Nám. J. Herdu 2  
91701 Trnava  
Slovak Republic  
lucia.spalova@ucm.sk

Lucia Spálová regards the transdisciplinary nature of research anchored in social sciences, in critical social psychology and in discursive linguistics. The main topic of this research in the field of media and communication studies is the social responsibility of media discrimination in the media, media portrayals of stereotypes and effectivity of persuasion techniques in digital communication.



Prof. Mgr. Peter Mikuláš, PhD.  
Department of Mass Media Communication and Advertising  
Faculty of Arts  
Constantine the Philosopher University  
Dražovská 4  
949 74 Nitra  
Slovak Republic  
pmikulas@ukf.sk

Peter Mikuláš deals with the intersections between marketing and media communication. He focuses on celebrity culture, especially on the celebrity endorsement used for the promotional purposes. He pays special attention to non-living celebrities and the nature of their circulation in the cultural and media space. Another part of his research field deals with the creation and analysis of new genres in audiovisual media, including reality TV.

## ABSTRACT:

Extreme situations, such as military conflicts, generate interest in how they are perceived by the public, which must process a broad array of media stimuli in a certain way. In this study, we discuss how the basic aspects of the current military conflict (the war in Ukraine) were perceived by young people (Generation Z) in Slovakia, with a focus on the initial part of the Russian invasion of Ukraine. We argue that the digital resistance of Slovakia's citizens is currently low, which – in conjunction with the extremely focused activity of the disinformation scene – creates a risky environment. We use the Semantic Selection Test as a psychosemantic method on a sample of Slovak university students. One of our basic findings is the associative closeness of the concept of “Self” in Generation Z and *Instagram*, popular Internet memes and educational videos in connection with expertise. We also found that the recipients were subject to positive media manipulation (the Ghost of Kyiv) and were able to identify standard linguistic propaganda (negative associations of terms “war in Ukraine” and “special military operation”). The results can help us understand the perception of emergency situations by Generation Z.

## KEY WORDS:

digital resilience, disinformation, hybrid threats, semantic maps, special military operation, war in Ukraine

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## 1 Introduction

As the theoretical starting points of this study, we emphasise the increasingly negative impact of uncritical acceptance of disinformation and hoaxes through social networks and an increased identification with various digital influencers (the so-called non-governmental political actors).<sup>1</sup> The lack of media literacy associated

<sup>1</sup> See: BESSI, A. et al.: Science vs Conspiracy: Collective Narratives in the Age of Misinformation. In *PLoS ONE*, 2015, Vol. 10, No. 2, p. 1-17; CRAFT, S., ASHLEY, S., MAKSL, A.: News Media Literacy and Conspiracy Theory Endorsement. In *Communication and the Public*, 2017, Vol. 2, No. 4, p. 388-401; DAMARAD, V., YELISEYEU, A.: *Disinformation Resilience in Central and Eastern Europe*. [online].

with the development of critical thinking has been noted for a long time in the V4 countries, and alarming findings<sup>2</sup> were identified in relevant sources – more than a third of the population believes in conspiracies and the resilience index is very low.<sup>3</sup> The definition of vulnerable groups is still subject to scientific scepticism. One significant predictor indicating membership of the vulnerable groups in the Slovak Republic (apart from age – Generation Z, seniors) is conservative self-classification, strong religiosity and proclivity towards political parties focusing on the national or traditional family policy.<sup>4</sup> However, a meta-analysis of other data did not show a connection between the intensity of monitoring social networks or trust in social networking sites and the vulnerability of groups to hybrid threats. The polarised communities emerge around different types of content,<sup>5</sup> while knowledge of the news media has been shown to lead to a lower likelihood of endorsing conspiracy theories despite their compliance with the political ideology of the recipients.<sup>6</sup> The social benefit of a more precise identification of factors (personality, environment and education) affecting the succumbing to pseudoscientific beliefs in vulnerable groups and improving their resilience is indisputable.

At the same time, the positive contexts of social engagement of Generations Z and Y through digital models are being increasingly accentuated in the field of social sciences<sup>7</sup> and their possible use in increasing resilience against hybrid threats. It turns out that the above-mentioned media model (the so-called behavioural digital formula) is also transferable to Generation X and older generations and the use of social media by said generations is ever-increasing. However, it is necessary to consider the preferred type of media platform – Alpha Generation/*TikTok*; Generation Z/*Instagram*; Generation Y/*Facebook/YouTube/Twitter/X*, older generations/*Facebook* and websites.

Recently, the scientific community and experts have placed an emphasis on digital social resilience – the ability of citizens to face disinformation and hoaxes in the turbulent era of booming mosaic reading/reception of digital texts/contents in the online space of digital media platforms. The cognitive dimension within the current participatory politics in the area of the so-called promotion of public policies by non-state actors<sup>8</sup> plays a specific role in the resilience of recipients.

Within the EU, Slovakia is one of the most vulnerable countries to hybrid threats.<sup>9</sup> The situation is framed by the popularity of the Internet as an information medium. According to a Reuters survey,<sup>10</sup> 79% of Slovak citizens use the Internet as their main information source. At the same time, we have also noted on the global scale that the positions of traditional media are being overtaken by the Internet, especially by social media. The News Use Across Social Media Platforms 2018 research report suggests that *Facebook* is becoming the main digital news source, since more than 43% of all fake-news-viewing users primarily access fake news via *Facebook*.<sup>11</sup> And social media are undoubtedly one of the most visible signs of our times. According to the

[2023-06-06]. Available at: <<http://prismua.org/en/dri-ccc/>>; ENDERS, A. M. et al.: The Relationship Between Social Media Use and Beliefs in Conspiracy Theories and Misinformation. In *Political Behaviour*, 2023, Vol. 45, No. 2, p. 781-804.

2 See also: PISKLOVÁ, M., SYKORA, J. (eds.): *Dezinformácie a V4*. Bratislava: Slovak Foreign Policy Association, 2021. [online]. [2023-03-08]. Available at: <<https://www.sfpa.sk/wp-content/uploads/2021/08/Dezinformacie-a-V4.pdf/>>.

3 Compare to: DAMARAD, V., YELISEYEU, A.: *Disinformation Resilience in Central and Eastern Europe*. [online]. [2023-06-06]. Available at: <<http://prismua.org/en/dri-ccc/>>. For more information about the perception of disinformation by Generation Z in V4 countries, see: EGER, L. et al.: Trust Building and Fake News on Social Media from the Perspective of University Students from Four Visegrad Countries. In *Communication Today*, 2020, Vol. 11, No. 1, p. 71-88.

4 IPSOS: *Postoje k informačnej vojne sú na Slovensku dlhodobo stabilné. V Českej republike ubúda tých, ktorí vnímajú ČR ako súčasť informačnej vojny vedenej Ruskou federáciou*. Released on 15<sup>th</sup> March 2023. [online]. [2023-06-02]. Available at: <[https://www.ipsos.com/sites/default/files/ct/news/documents/2023-03/IPSOS%20-%20Tla%C4%8Dov%C3%A1%20spr%C3%A1va%20-%20informa%C4%8Dn%C3%A1%20vojna\\_15.3.2023.pdf](https://www.ipsos.com/sites/default/files/ct/news/documents/2023-03/IPSOS%20-%20Tla%C4%8Dov%C3%A1%20spr%C3%A1va%20-%20informa%C4%8Dn%C3%A1%20vojna_15.3.2023.pdf)>.

5 BESSL, A. et al.: Science vs Conspiracy: Collective Narratives in the Age of Misinformation. In *PLoS ONE*, 2015, Vol. 10, No. 2, p. 1-17.

6 CRAFT, S., ASHLEY, S., MAKSL, A.: News Media Literacy and Conspiracy Theory Endorsement. In *Communication and the Public*, 2017, Vol. 2, No. 4, p. 388-401.

7 Compare to: GRAY, G. et al.: Learning Factor Models of Students at Risk of Failing in the Early Stage of Tertiary Education. In *Journal of Learning Analytics*, 2016, Vol. 3, No. 2, p. 330-372; GIFFORD, R., NILSSON, A.: Personal and Social Factors that Influence Pro-Environmental Concern and Behaviour: A Review. In *International Journal of Psychology*, 2014, Vol. 49, No. 3, p. 141-157; YALCIN, T., NISTOR, C., PEHLIVAN, E.: Sustainability Influencers: Between Marketers and Educators. In *Business Forum*, 2020, Vol. 28, No. 1, p. 1-11.

8 See: VILMER, J. J. et al.: *Information Manipulation – A Challenge for Our Democracies*. Paris: CAPS & IRSEM, 2018.

9 See also: MILO, D. et al.: *Mapovanie zraniteľnosti slovenskej republiky v oblasti hybridných hrozieb*. Bratislava: Globsec, 2018.

10 Compare to: NEWMAN, N. et al.: *Reuters Institute Digital News Report 2020*. Oxford: Reuters Institute for the Study of Journalism, 2021.

11 MARTIN, N.: *Forbes: How Social Media Has Changed How We Consume News*. Released on 30<sup>th</sup> November 2018. [online]. [2021-05-05]. Available at: <<https://www.forbes.com/sites/nicolemartin/2018/11/30/how-social-media-has-changed-how-we-consume-news/?sh=54044e963e3c>>.

statistics, 71.7% of Slovaks used them in 2020, marking a growth of 0.2% compared to the previous year.<sup>12</sup> The success of digital social media with the younger population has been enormous. In Slovakia, more than 90.5% of young people aged 16 – 24 use *Facebook*, *Instagram*, *Snapchat* and/or other social media services.<sup>13</sup>

By European standards, Slovak society is unusually prone to conspiracy theories<sup>14</sup> and disinformation.<sup>15</sup> At the same time, it is characterised by extremely low trust in democratic institutions and the media.<sup>16</sup> The population's support for liberal democracy as a system based on freedom, equality and human rights is also in decline.<sup>17</sup>

The war in Ukraine<sup>18</sup>, also referred to as the “Russian invasion of Ukraine” or “occupation of Ukraine”, broke out on 24<sup>th</sup> February 2022. This conflict is an escalation of Russia's long-term attempt to control Ukraine, which began in 2014 with the annexation of the Crimean Peninsula and armed tensions in the Donetsk and Luhansk Region. The scale and intensity of the conflict is so massive that it is widely described as the largest interstate armed conflict in Europe since the end of World War II.<sup>19</sup> The Russian side does not term the conflict a “war” but uses the legislatively imposed label “special military operation”, the observance of which is strictly monitored in Russia and its violation (i.e., labelling it a “war”) is sanctioned. Russian authorities and state media therefore carefully avoid using the words “war” and “invasion”.<sup>20</sup> The conflict has so far (August 2023) claimed the lives of tens of thousands of wounded soldiers on both sides and officially almost 10,000 civilian casualties.<sup>21</sup>

Since its outbreak, the war in Ukraine has become a prominent motif on the Slovak disinformation scene. Analysts point out that the streams feeding this topic have long been stimulated by disinformation tactics from the Russian Federation,<sup>22</sup> which both created an audience willing to share its views, and which continues to nourish this audience. The main narratives of the Slovak disinformation scene in connection with the conflict in Ukraine include:

- We should not send weapons to Ukraine and thus prolong the war.
- Ukraine rejects peace negotiations with Russia.
- The Russian military operation is a forced response to provocation by Ukraine and the West.
- Citizens in the occupied territories of Ukraine voted in favour of joining Russia.

12 YAR, L.: *Výše 90 percent mladých Slovákov a Sloveniek je na sociálnych sieťach, viac ale zaujímajú dievčatá*. Released on 5<sup>th</sup> January 2021. [online]. [2022-10-02]. Available at: <<https://euractiv.sk/section/digitalizacia/news/vyse-90-percent-mladych-slovakov-a-sloveniek-je-na-socialnych-sietach-viac-ale-zaujimaju-dievcata/>>.

13 See: YAR, L.: *Výše 90 percent mladých Slovákov a Sloveniek je na sociálnych sieťach, viac ale zaujímajú dievčatá*. Released on 5<sup>th</sup> January 2021. [online]. [2022-10-02]. Available at: <<https://euractiv.sk/section/digitalizacia/news/vyse-90-percent-mladych-slovakov-a-sloveniek-je-na-socialnych-sietach-viac-ale-zaujimaju-dievcata/>>. As evidenced by the conclusions of several studies, one of the consequences of the situation is the increased range and intensity of digital media influencers. See: VRABEC, N., PETRANOVÁ, D., SOLÍK, M.: New Role Models for Slovak Youth in the Context of Media Communication. In *European Journal of Science and Theology*, 2014, Vol. 10, No. 4, p. 143-153; SOLÍK, M.: *Uznanie ako problém spravodlivosti a jeho mediálna reflexia*. Trnava: FMK UCM, 202; SPÁLOVÁ, L., MIKULÁŠ, P., PÚCHOVSKÁ, O.: Attitudes towards Different Influencer Categories – Exploration of Generation Z. In *Communication Today*, 2021, Vol. 12, No. 1, p. 57-58.

14 See: NEWMAN, N. et al.: *Reuters Institute Digital News Report 2020*. Oxford: Reuters Institute for the Study of Journalism, 2021.

15 OSTROŽOVIČOVÁ, B.: *Informačná vojna (prieskum CZ+SK)*. Released on 21<sup>st</sup> July 2022. [online]. [2023-03-06]. Available at: <<https://www.ipsos.com/sk-sk/informacna-vojna-prieskum-czsk/>>.

16 *Dôvera v inštitúcie*. [online]. [2023-08-05] Available at: <<https://www.akosamateslovensko.sk/tema/dovera-v-institutcie/>>.

17 See: GLOBSEC: *Globsec Trends 2023*. Bratislava: Globsec, 2023.

18 Remark by authors: Since the war in Ukraine is a relatively new and topical issue, its reflection in the scientific literature is still limited, which is especially true when it comes to how it is perceived by young people. So far, its professional reflection can be found primarily in research reports of third sector organizations or surveys funded by individual countries. The research report titled “Impact of War on Youth in Ukraine” looks into how the war is perceived by young Ukrainians and how it affects them. The report indicates that the young people directly or indirectly involved in the conflict are significantly more socially engaged than ever before, and their determination to stay and live in Ukraine, or to return from emigration, is increasing. Confidence in European (EU) and transatlantic (NATO) structures has also grown significantly. See: PETSZYK, Y.: *Impact of War on Youth in Ukraine*. Kyiv: UNDP, 2023.

19 ANONYMOUS: 2 Europe and Eurasia. In *Armed Conflict Survey*, 2022, Vol. 8, No. 1, p. 102-129.

20 CLARK, N.: *Here's How Propaganda Is Clouding Russians' Understanding of the War in Ukraine*. Released on 15<sup>th</sup> March 2022. [online]. [2023-06-06]. Available at: <<https://www.npr.org/2022/03/15/1086705796/russian-propaganda-war-in-ukraine/>>.

21 UNITED NATIONS: *Ukraine: Civilian Casualty Update 14 August 2023*. Released on 14<sup>th</sup> August 2023. [online]. [2023-08-30]. Available at: <<https://www.ohchr.org/en/news/2023/08/ukraine-civilian-casualty-update-14-august-2023/>>.

22 Remark by authors: Globsec Trends research with a telling title “Central Europe under the Fire of Russian Propaganda: Exploring Public Attitudes in the Czech Republic, Hungary and Slovakia”, which states: “Slovakia shows the highest level of tolerance towards a pro-Russian orientation (...), and also the highest level of anti-Americanism.” See: GLOBSEC: *Globsec Trends: Stredná Európa pod palbou ruskej propagandy: Skúmanie postojov verejnosti v Čechách, Maďarsku a na Slovensku*. Bratislava: Globsec, 2016.

- Sanctions against Russia are not working.
- The Russian-speaking population in Ukraine is hit by genocide.
- Ukraine produces biological weapons.<sup>23</sup>

The positive sentiment related to the Russian interpretation of the war conflict is a consequence of significant activities in the disinformation environment – combined with the low digital resistance of the Slovak media audience. According to a Globsec survey,<sup>24</sup> only 40% of Slovak citizens perceive Russia as the main culprit in the war, which is the least of all countries in the monitored region.<sup>25</sup> Analogous to the high sentiment towards Russia, the research identified mistrust of the Western world: up to 34% of Slovaks blame the war on the West, which they believe provoked Russia, 69% perceive aid to Ukraine as a provocation of Russia, which brings Slovakia closer to war. The Eurobarometer has reported similarly alarming numbers: only 31% of Slovaks fully identify with the fact that Russia is fully responsible for unleashing the conflict.<sup>26</sup> At the same time, only slightly more than half (54%) of Slovaks consider Russia a security risk.<sup>27</sup> Negative sentiment towards Ukrainian refugees prevails (69% vs. 59%)<sup>28</sup> and only 39% of Slovaks show complete sympathy for Ukrainians, while the pan-European average is at the level of 54%.<sup>29</sup> Alongside growing pro-Russian sentiment, trust in security and European structures is in decline, and it is among the lowest in Slovakia: NATO membership is only supported by 58% of the Slovak population and EU membership by 64%.

## 2 Methodology

The perception of social phenomena reflected in the media environment can be investigated with different approaches. The methodological concepts, which are also applied in media and communication studies dealing with the investigation of so-called social representations, are diverse and consist of different insights.<sup>30</sup> The holistic concept, which also identifies the implicit meanings of the researched social phenomena, also reflects the approaches used in critical social psychology – psychosemantic methods, which allow us to explore the subjective meaning of social representations and social concepts in marketing research.<sup>31</sup> Based on the above, we were interested in how Generation Z perceives the war in Ukraine and its media images. Due to the nature of our research, we prefer the triangulation approach (theoretical and methodological triangulation) with a preference for the qualitative approach, and we broadly formulated the following research question:

RQ1: How does Generation Z perceive the terms “special military operation” and “Ghost of Kyiv” associated with the significantly positive and negative media framing in the immediate aftermath of the outbreak of the military conflict in Ukraine in relation to “Self”?

The aim of this research was to identify the understanding of concepts associated with the onset of the military conflict in Ukraine in the semantic space of Generation Z in relation to “Self” and authorities in the field of protecting the safety of Slovak citizens.

23 *Mýty a fakty o Ukrajine*. [online]. [2022-10-02]. Available at: <<https://www.mzv.sk/aktualne/ukrajina/myty-a-fakty-o-ukrajine/>>.  
 24 See: GLOBSEC: *Globsec Trends 2023*. Bratislava: Globsec, 2023.  
 25 Remark by authors: The research was carried out in eight East European countries: Poland, Lithuania, Latvia, Czech Republic, Romania, Hungary, Bulgaria and Slovakia.  
 26 *EU's Response to the War in Ukraine*. [online]. [2022-06-15]. Available at: <<https://europa.eu/eurobarometer/surveys/detail/2772/>>.  
 27 Compare to: GLOBSEC: *Globsec Trends 2023*. Bratislava: Globsec, 2023.  
 28 See: GLOBSEC: *Globsec Trends 2023*. Bratislava: Globsec, 2023.  
 29 *EU's Response to the War in Ukraine*. [online]. [2022-06-15]. Available at: <<https://europa.eu/eurobarometer/surveys/detail/2772/>>.  
 30 See: DU PLESSIS, E.: *Jak zákazník vnímá značku*. Prague: Computer Press, 2011; KELLER, K. L.: *Strategické řízení značky*. Prague: Grada, 2007.  
 31 Compare to: PLICHTOVÁ, J.: *Metódy sociálnej psychológie zblízka. Kvalitatívne a kvantitatívne skúmanie sociálnych reprezentácií*. Bratislava: MÉDIA, 2002; URBÁNEK, T.: *Psychosémantika. Psychosémantický prístup ve výskumu a psychodiagnostice*. Prague: Pavel Křepela, 2003; HENDL, J.: *Kvalitatívni výzkum*. Prague: Portál, 2005.

This aim and the answers to the research question have been implemented through the psychosemantic method and the Semantic Selection Test (hereinafter SST), which was modified by the authors. When using SST, we focus on how the respondents view themselves and persons and things around them in their semantic space. In this area, every object has its place depending on its importance to the respondent. The SST works with two types of elements, which will be called stimuli/terms and attributes/images. Both elements are “meaningfully charged” from the respondent’s perspective. The respondent assigns attributes to the individual terms based on their own beliefs, emotions and associations. In the original version of the SST, the attributes are rendered through 16 semantic images (house, flower, water, sun, lips, fish, eye, boat, moon, knife, bar, grave, spider web, snake, bar, worm). In the modified version, the participants select at least 4 and up to 8 images that best characterise the individual concepts/stimulus words. When operationalising the research problem, we selected stimulus words based on the attitudes of a specific group of the Slovak population (Generation Z) towards the actors and stakeholders in the military conflict in Ukraine in 2022 and the dominant narrative in the media. In the modified SST we have proposed to monitor the relationships (semantic maps) of the following terms:

Table 1: Terms chosen for the Semantic Selection Test

REFERENTIAL CONCEPTS Description: Referential concepts associated with the attitude towards Russia’s military invasion of Ukraine	
I, citizen, follower, Internet troll	SPECIAL RUSSIAN MILITARY OPERATION Ukraine, Russia, USA, President Zelensky, President Putin
MEDIA STRATEGIES Description: Concepts with affinity to effective media types and media tools	
Instagram, Facebook, YouTube, TikTok, disinformation media, hoax, alternative media, educational videos, memes	GHOST OF KYIV
PROTECTION OF CITIZENS DURING SECURITY THREATS Description: Concepts mapping the effectiveness and values of state and non-state actors, and concepts threatening the security of citizens	
trust, solidarity, expertise, responsibility, safety	Slovak Police, President Čaputová, non-profit organisation
inaction, indifference, arrogance, manipulation, corruption	pandemic, migration, war in Ukraine

Source: Own processing

The research set/population consisted of a total of 75 respondents born between 1993 and 2000, and we processed 64 tests in the analysis (11 tests were excluded due to insufficiently populated data). The average age of the respondents was 22.4 years. The data collection took place in March 2022 at the Faculty of Arts, Constantine the Philosopher University in Nitra, and at FMK UCM in Trnava.

## 3 Results

In the statistical processing of the data from the SST, we used non-hierarchical cluster analysis, followed by correspondence analysis. Cluster analysis is one of the statistical methods that deals with the similarity of multidimensional objects and the classification of objects into clusters. In general, cluster analysis can be defined as a general logical procedure in which objects are combined into groups – clusters, based on their similarities and differences. For each pair of attributes, we calculated the Simple Matching Coefficient based on the respondents’ answers, which is one of the measures of dissimilarity between dichotomous objects.

Table 2: Probabilities of attributes belonging to clusters in a two-cluster solution obtained through a fuzzy cluster analysis

Attribute	C1	C2
Dagger	0.83	0.17
Eye	0.16	0.84
Snake	0.39	0.61
Bar	0.16	0.84
Grave	0.86	0.14
Spider web	0.77	0.23
Tree	0.72	0.28
Flower	0.68	0.32
Fish	0.85	0.15
House	0.66	0.34
Water	0.26	0.74
Sun	0.53	0.47
Moon	0.18	0.82
Worm	0.78	0.22
Boat	0.19	0.81

Source: Own processing

With the help of statistical analysis, we found that the attributes (images) in connection with the selected elements (concepts) are divided into two groups, i.e., they create two dimensions. The results of correspondence analysis used in the contingency table whose columns are formed by the attributes of the first cluster, suggest that the first dimension explains up to 70% of the total inertia, and the attributes of the second cluster only 51% of the total inertia. We have only prepared the interpretation and visual representation for the results from the first cluster (see Figure 1).

It is possible to identify 4 association segments in the semantic map of individual monitored terms. The first segment is significantly positively associated with the attributes *flower*, *tree*, and *sun* in connection with the security values (*safety*, *responsibility*, *trust*) and the concepts reflecting important state and non-state actors in ensuring the safety of citizens – the President of the Slovak Republic *Zuzana Čaputová* and *non-profit organisations*. The second segment is significant due to the associative closeness of *Self* in Generation Z and the concepts of *citizen*, *Ukraine* and *Ghost of Kyiv* (at the time of the administration of the test, the purposeful mythologisation of the aviation hero was not known). In terms of the closest association with media communication, the dominant behavioural patterns of Generation Z (see above) include the preference for *Instagram* and participatory media communication in the form of *memes* and the so-called *educational videos*. The anchoring of the concept *expertise* in this segment is a surprising result. In the neutral zone of the second segment, the concepts of *President Zelensky*,<sup>32</sup> *USA*, *Slovak Police* are anchored near the term *follower*, which indicates an increased media interest in the above political actors in association with *YouTube*, *Facebook* and *TikTok*. The third segment can be defined as a significantly dissociated segment with a predominantly negative connotation; the boundary between the second and third segment is anchored by the concept of *alternative media*. This segment is represented by attributes such as *mouth*, *water*, *moon* and the concepts associated

32 Remark by authors: On Volodymyr Zelensky as a subject of political communication in the post-truth era, see: LIUBCHENKO, Y. et al.: Political Communication in the Post-Truth Era: Mind Mapping Values of Ukraine's Volodymyr Zelensky. In *Communication Today*, 2021, Vol. 12, No. 2, p. 147-167.

with threats: *migration*, *pandemic*, *war in Ukraine*, *special military operation*, *Russia* in connection with *indifference* and *inaction*. The fourth segment has the most salient negative connotation (the attribute *worm*), the associative cluster consists of the terms *hoax*, *Internet troll*, *disinformation websites*, *President Putin*, *arrogance*, *manipulation* and *corruption*.

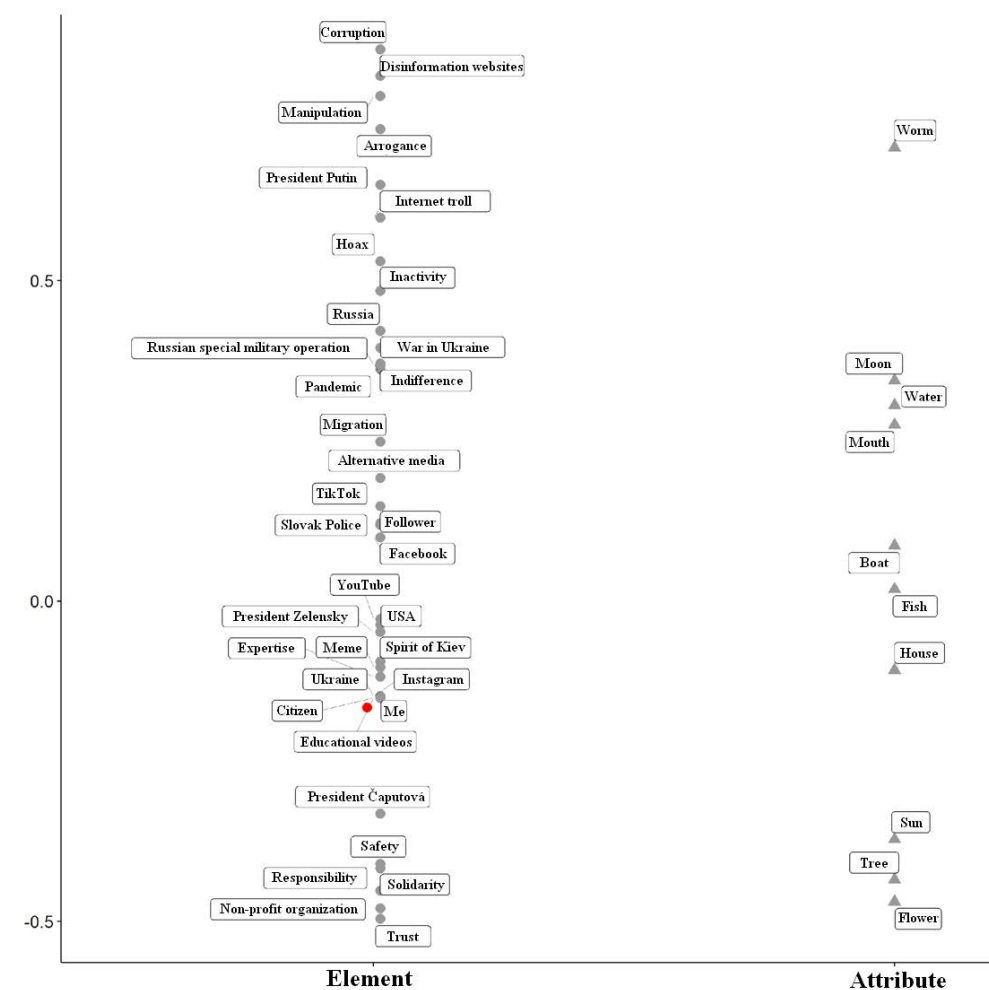


Figure 1: The representation of the position of elements and attributes in the first dimension calculated by correspondence analysis for the attributes of the first cluster

Source: Own processing

We paid special attention to the factors of the media environment and the potential influence of media framing, the so-called precedent phenomena (War in Ukraine). We exemplify the standard negative media manipulation with significant euphemising of the Russian military invasion of Ukraine by President Putin, and the equally official Russian line of interpretation, which calls the conflict a special military operation. Some political and non-political actors tried to displace the meaning of aggression from the media discourse (the so-called linguistic transformation). The reaction to the above was the creation of a number of memetic texts evoking the significant participation of Generation Z in media culture (e.g., Figures 2, 3). With a clear and deliberate euphemism, the digital prosumers tried to influence the recipient's opinion in a parodic way and decode the manipulative media discourse of President Putin (in 2023, the largest online bookstore Martinus changed the names of all book titles containing the word "war"). The ability of Generation Z to decode



deliberate manipulation is documented by the associative proximity of the concepts *War in Ukraine* and *special military operation* (third segment, significantly negative attitude) in the semantic map of the perception of the military conflict in Ukraine. We note that as early as the initial phase of the operation, members of Generation Z were aware that the soft Russian wording only serves to obscure a conflict of war proportions.



Figure 2: Example of a memetic text using the substitution of the word war and special military operation  
Sources: BRONSKI: Lev N. Tolstoj. *Špeciálna vojenská operácia a mier*. [online]. [2023-09-12]. Available at: <<https://br0nski.gulas.sme.sk/139105/v-a-mier.html/>>; ALEXIJEVIČ, S.: *Vojna nemá ženskú tvár*. [online]. [2023-09-18]. Available at: <[https://www.martinus.sk/?uitem=220658&z=WLGC7F&utm\\_source=z%3DWLGC7F&utm\\_medium=url&utm\\_campaign=partner/](https://www.martinus.sk/?uitem=220658&z=WLGC7F&utm_source=z%3DWLGC7F&utm_medium=url&utm_campaign=partner/)>.

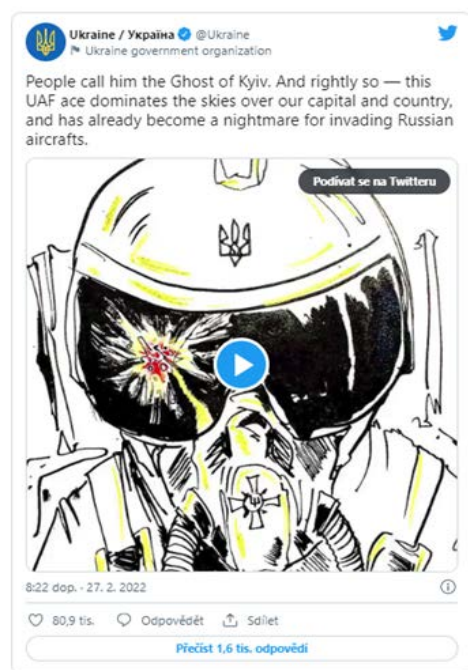


Figure 3: Example of media mythologisation of a Ukrainian hero – the Ghost of Kyiv  
Source: UKRAINE: *People Call Him the Ghost of Kyiv*. Released on 27<sup>th</sup> February 2022. [online]. [2023-02-02]. Available at: <<https://twitter.com/ukraine/status/1497834538843660291/>>.

The second representative example has the nature of positive media manipulation through mystification. The use of mystification during war can be considered a fairly standard psychological strategy, the goal of which is to demoralise the enemy and strengthen faith in one's own abilities, and thereby mobilise forces for resistance. A typical example of mystification are the exceptional military heroes, possessing abilities on the border of believability and rationality. The origins of mystical heroes can be traced back to ancient Greece where some soldiers/leaders were attributed divine abilities, and mystification was used in various forms in conflicts in the 20<sup>th</sup> century. The essential factor of a successful mystification is believability, i.e., the ability of its authors (one of the competing parties) to create and cultivate it so that it is rational in its core. Ukraine decided to use the creation of a mystical hero in an extremely tense situation caused by the beginning of the Russian invasion. This hero was named the *Ghost of Kyiv* – an alleged Ukrainian hero, a fighter pilot. He was credited with exceptional military achievements, reportedly shooting down as many as 40 enemy aircrafts.<sup>33</sup> Stories about him began to circulate after Russia invaded Ukraine and they circulated for months, supported by official Ukrainian social media accounts. His actual existence has been the subject of speculation, underscored by the fact that he was killed in action on 13<sup>th</sup> March 2022, just weeks after the invasion began. However, a little later (in May 2022), the Ukrainian army published a Facebook status: “*The Ghost of Kyiv is a superhero legend, a character created by Ukrainians!*”<sup>34</sup> thereby officially confirming that the legendary pilot is a myth created for the purpose of war propaganda. The Ukrainians also admitted that the downed pilot was Stepan Tarabalka, a real person who was initially misidentified. The Ukrainian Air Force also referred to the mythological essence of the *Ghost of Kyiv* in a tweet: “*The Ghost of Kyiv is alive and embodies the collective spirit of highly qualified pilots of the tactical aviation squadron who successfully defend Kyiv and its surroundings.*”<sup>35</sup> The *Ghost of Kyiv* was perceived by the respondents as a positive segment, in close proximity from *Self*. The distances between the *Ghost of Kyiv* and the concept of *manipulation* or *hoax* are striking. The reason is that the mystifying plane of the *Ghost of Kyiv* appeared only a few months after the research was carried out. We can therefore conclude that the *Ghost of Kyiv*, at the time when he was supposedly operating, was effective, including on the (non)Ukrainian media audience. Even a generation that had never experienced a war conflict could identify with him.

## 4 Discussion

The attitudes to information warfare in relation to war have been stable for a long period of time in Slovakia. Less than a year after the first survey, 36% of Slovaks think that our country is part of an information war led by Russia – a number that does not deviate from previous surveys. The number of those who think otherwise, i.e., that information warfare is just an excuse for the governments to restrict free speech and inconvenient media, has not changed significantly.<sup>36</sup> For example, the examined attitudes of a representative sample of Slovak respondents towards authoritative leaders in 2023 showed relatively high favourable attitudes in the case of President Vladimir Putin (27%), and relatively low values in the case of President Volodymyr Zelensky (33%).<sup>37</sup> These results do not correspond to our findings: the group of Generation Z (university students of media and communication studies) under review has a significantly negative attitude towards information warfare and pro-Russian narratives. It seems that the digital resilience of Generation Z regarding Russian propaganda is higher in the case of standard media strategies, but we noted a low resilience in the case of the so-called positive media manipulation/propaganda (mythologisation of the Ghost of Kyiv).

33 KOLÁR, T., SLADKOVSKÁ, I.: *Duch Kyjeva je mŕtvý. Na konte má až 40 zostrelených ruských lietadiel*. Released on 29<sup>th</sup> April 2022. [online]. [2023-05-05]. Available at: <<https://www.startitup.sk/duch-kyjeva-je-mrtvy-na-konte-ma-az-40-zostrelenych-ruskych-lietadiel/>>.

34 *Ukrajina priznala, že údajný pilot nazývaný “Duch Kyjeva” je mýtus*. Released on 2<sup>nd</sup> May 2022. [online]. [2023-02-02]. Available at: <<https://spravy.pravda.sk/svet/clanok/625277-ukrajina-priznala-ze-udajny-pilot-nazyvany-duch-kyjeva-je-mytus/>>.

35 *Ukrajina priznala, že údajný pilot nazývaný “Duch Kyjeva” je mýtus*. Released on 2<sup>nd</sup> May 2022. [online]. [2023-02-02]. Available at: <<https://spravy.pravda.sk/svet/clanok/625277-ukrajina-priznala-ze-udajny-pilot-nazyvany-duch-kyjeva-je-mytus/>>.

36 IPSOS: *Postoje k informačnej vojne sú na Slovensku dlhodobo stabilné. V Českej republike ubúda tých, ktorí vnímajú ČR ako súčasť informačnej vojny vedenej Ruskou federáciou*. Released on 15<sup>th</sup> March 2023. [online]. [2023-06-02]. Available at: <[https://www.ipsos.com/sites/default/files/cu/news/documents/2023-03/IPSOS%20-%20Tla%20C4%8Dov%20spr%20A1va%20-%20informa%C4%8Dn%C3%A1%20vojna\\_15.3.2023.pdf](https://www.ipsos.com/sites/default/files/cu/news/documents/2023-03/IPSOS%20-%20Tla%20C4%8Dov%20spr%20A1va%20-%20informa%C4%8Dn%C3%A1%20vojna_15.3.2023.pdf)>.

37 See: GLOBSEC: *Globsec Trends 2023*. Bratislava : Globsec, 2023.

Interesting findings were also made when comparing the perceptions in the countries involved. The *USA* is in the positive segment, close to *Self*, whereas *Russia*, on the other hand, is in the negative segment. This is contrary to what the data for the entire Slovak population show where both countries show a similar sentiment. This is also underlined by the fact that *President Zelensky* is placed in the positive segment while *President Putin* is in the negative segment – ranking significantly lower than *Russia*. Ukraine is placed very close to *Self*, which indicates the internalisation of the problem and understanding that it is a physically and mentally close entity. These findings indicate that Generation Z is less receptive to interpretations from the Russian side or alternative media operating in Slovakia in the overall perception of Russian military aggression.

*Safety, responsibility, solidarity* and *trust* have very important places in their mental space in Generation Z. They are based on two institutional anchors: *President Čaputová* and *non-profit organisations*. The importance of *safety* can be understood mainly situationally because immediately after the Russian invasion it was questionable how far the manifested power ambitions of the aggressor would reach, and – what is essential in this context – the fact that Slovakia shares a common border with Ukraine.<sup>38</sup> There have been speculations in the media since the beginning of the invasion that Russia might also attack Slovakia militarily,<sup>39</sup> but rational arguments to the contrary prevailed.<sup>40</sup> What is important, however, is that this topic was publicly discussed, and that Generation Z evidently reflected on it accordingly. In the given situation, Generation Z voiced *responsible* solutions and *solidarity* with the occupied Ukrainians. It is significant that the concept of *indifference* and *inaction* (in contrast to *responsibility*) is only found in the third dissociated cluster, and the concept of *arrogance* in the fourth segment with a significantly negative connotation (*worm*). A real solution is offered in *expertise* – a concept located in the positive segment and close to *Self*. An ideal solution is the activity of accepted authorities, *President Čaputová* and especially – which we consider to be an interesting finding – *non-profit organisations*. Apparently, these replace the little-respected formal authorities (with the exception of the president) in the mental space of Generation Z.

## 5 Conclusion

The Russian Federation attacked Ukraine on 24<sup>th</sup> February 2022, under the pretext of the “denazification” and “demilitarisation” of Ukraine. The war in Ukraine has been going on for more than a year, more than 8 million refugees have fled Ukraine since its beginning, and it claimed more than 100,000 casualties on both sides. This unprecedented phenomenon attracted enormous media interest from the very beginning and the boom in pro-Russian propaganda even led to the temporary shutdown of websites spreading disinformation. The Slovak population believed the disinformation with the highest rate among the V4 countries. The factors determining low resilience against hybrid disinformation threats also include age/generation. The dominant media behavioural patterns of Generation Z (preference for short messages, non-verification of information, mosaic reading, predominance of mediated information through influencers and others) encourage subjection to empirical distortions, misinformation and hoaxes.

The results of the research study showed that the conflict in Ukraine was closely followed and intensely perceived by this age cohort, which was able to adopt a clear critical attitude towards the aggressor. The perception of the war distances this specific group of Gen-Z students of media and communication studies from the average Slovak populace and brings it closer to the European standard.

38 Remark by authors: In the first weeks of the invasion, information appeared in the media about Russian operations close to the Slovak border, which raised real concerns among the Slovak public. See, e.g.: BAR: *Veľké bombardovanie len kusok od nás! Na základňu dopadlo 30 rakiet, zanechali po sebe tragickú spúšť*. Released on 14<sup>th</sup> March 2022. [online]. [2023-06-06]. Available at: <<https://www.cas.sk/clanok/2655095/velke-bombardovanie-len-kusok-od-nas-na-zakladnu-dopadlo-30-rakiet-zanechali-po-sebe-tragicku-spust/>>; *Bombardovanie na Ukrajinu je len 200 kilometrov od hraníc Slovenska*. Released on 24<sup>th</sup> February 2022. [online]. [2023-04-02]. Available at: <<https://dennikn.sk/minuta/2736276/>>.

39 ČIERNY, M.: *Hrozba pre Slovensko a Česko zo strany Ruska*. Released on 12<sup>th</sup> March 2022. [online]. [2022-11-06]. Available at: <<https://dennikn.sk/blog/2765097/hrozba-pre-slovensko-a-cesko-zo-strany-ruska/>>.

40 *Podľa ministra Nádja je nepravdepodobné, že by Rusko napadlo Slovensko*. Released on 24<sup>th</sup> February 2022. [online]. [2023-01-11]. Available at: <<https://www.trend.sk/spravy/j-povazujeme-nepravdepodobne-rusko-napadlo-sr-2/>>.

The research showed the associative closeness of the concept of “Self” in Generation Z with the following concepts: *Instagram*, popular Internet memes and educational videos – all closely linked with expertise. We also identified that the analysed age cohort succumbed to positive media manipulation presenting the myth of the *Ghost of Kyiv* in the extremely tense period at the beginning of the Russian aggression. The ability of Generation Z to detect the standard linguistic propaganda of the Russians, which ‘sugarcoated’ the war with the euphemism “special military operation”, was clearly demonstrated. The negative associations of concepts such as “war in Ukraine” and “special military operation” had very similar results. The results of this study can help us understand the perception of this extraordinary event by Generation Z, which has never been exposed to an explicit and massive manifestation of violence – not only on the mental (Ukrainians are described as Slavic, sometimes even as a fraternal nation) but also on the physical plane (Ukraine is a neighbouring country and university students often come into contact with Ukrainians).

The results cannot be generalised to the entire Generation Z due to the specifics of our research group/population (university students, professional knowledge of how the media function, ability to identify manipulative media techniques). The above indicates the necessity to develop and implement programs aimed at the development of critical thinking and creativity, which are based on a thorough knowledge of the vulnerable target groups as well as the type and structure of disinformation and hoaxes, and the reasons determining their virality (the students of media studies participated in special educational projects). Various systematic educational strategies to increase citizen resilience to hybrid disinformation threats should be extended to various vulnerable population groups and support participation in democratic public policies.

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## BIBLIOGRAPHY

- ALEXIJEVIČ, S.: *Vojna nemá ženskú tvár*. [online]. [2023-09-18]. Available at: <[https://www.martinus.sk/?ultem=220658&z=WLCG7F&utm\\_source=z%3DWLGC7F&utm\\_medium=url&utm\\_campaign=partner/](https://www.martinus.sk/?ultem=220658&z=WLCG7F&utm_source=z%3DWLGC7F&utm_medium=url&utm_campaign=partner/)>.
- ANONYMOUS: 2 Europe and Eurasia. In *Armed Conflict Survey*, 2022, Vol. 8, No. 1, p. 102-129. ISSN 2374-0981.
- BAR: *Veľké bombardovanie len kusok od nás! Na základňu dopadlo 30 rakiet, zanechali po sebe tragickú spúšť*. Released on 14<sup>th</sup> March 2022. [online]. [2023-06-06]. Available at: <<https://www.cas.sk/clanok/2655095/velke-bombardovanie-len-kusok-od-nas-na-zakladnu-dopadlo-30-rakiet-zanechali-po-sebe-tragicku-spust/>>.
- BESSI, A. et al.: Science vs Conspiracy: Collective Narratives in the Age of Misinformation. In *PLoS ONE*, 2015, Vol. 10, No. 2, p. 1-17. ISSN 1932-6203.
- Bombardovanie na Ukrajinu je len 200 kilometrov od hraníc Slovenska*. Released on 24<sup>th</sup> February 2022. [online]. [2023-04-02]. Available at: <<https://dennikn.sk/minuta/2736276/>>.
- BRONSKI: *Lev N. Tolstoj. Špeciálna vojenská operácia a mier*. [online]. [2023-09-12]. Available at: <<https://br0nski.gulas.sme.sk/139105/v-a-mier.html/>>.
- CLARK, N.: *Here's How Propaganda Is Clouding Russians' Understanding of the War in Ukraine*. Released on 15<sup>th</sup> March 2022. [online]. [2023-06-06]. Available at: <<https://www.npr.org/2022/03/15/1086705796/russian-propaganda-war-in-ukraine/>>.
- CRAFT, S., ASHLEY, S., MAKSL, A.: News Media Literacy and Conspiracy Theory Endorsement. In *Communication and the Public*, 2017, Vol. 2, No. 4, p. 388-401. ISSN 2057-0473.
- ČIERNY, M.: *Hrozba pre Slovensko a Česko zo strany Ruska*. Released on 12<sup>th</sup> March 2022. [online]. [2022-11-06]. Available at: <<https://dennikn.sk/blog/2765097/hrozba-pre-slovensko-a-cesko-zo-strany-ruska/>>.
- DAMARAD, V., YELISEYEU, A.: *Disinformation Resilience in Central and Eastern Europe*. [online]. [2023-06-06]. Available at: <<http://prismua.org/en/dri-ccc/>>.
- Dóvera v inštitúcie*. [online]. [2023-08-05] Available at: <<https://www.akosamateslovensko.sk/tema/dovera-v-institutcie/>>.
- DU PLESSIS, E.: *Jak zákazník vnímá značku*. Prague: Computer Press, 2011.
- EGER, L. et al.: Trust Building and Fake News on Social Media from the Perspective of University Students from Four Visegrad Countries. In *Communication Today*, 2020, Vol. 11, No. 1, p. 71-88. ISSN 338-130X.

ENDERS, A. M. et al.: The Relationship Between Social Media Use and Beliefs in Conspiracy Theories and Misinformation. In *Political Behaviour*, 2023, Vol. 45, No. 2, p. 781-804. ISSN 0190-9320.

EU's Response to the War in Ukraine. [online]. [2022-06-15]. Available at: <<https://europa.eu/eurobarometer/surveys/detail/2772/>>.

GIFFORD, R., NILSSON, A.: Personal and Social Factors that Influence Pro-Environmental Concern and Behaviour: A Review. In *International Journal of Psychology*, 2014, Vol. 49, No. 3, p. 141-57. ISSN 1464-066X.

GLOBSEC: *Globsec Trends: Stredná Európa pod palbou ruskej propagandy. Skúmanie postojo verejnosti v Čechách, Maďarsku a na Slovensku*. Bratislava : Globsec, 2016.

GLOBSEC: *Globsec Trends 2023*. Bratislava : Globsec, 2023.

GRAY, G. et al.: Learning Factor Models of Students at Risk of Failing in the Early Stage of Tertiary Education. In *Journal of Learning Analytics*, 2016, Vol. 3, No. 2, p. 330-372. ISSN 1929-7750.

HENDL, J.: *Kvalitatívny výzkum*. Prague : Portál, 2005.

IPSOS: *Postoje k informačnej vojne sú na Slovensku dlhodobo stabilné. V Českej republike ubúda tých, ktorí vnímajú ČR ako súčasť informačnej vojny vedenej Ruskou federáciou*. Released on 15<sup>th</sup> March 2023. [online]. [2023-06-02]. Available at: <[https://www.ipsos.com/sites/default/files/ct/news/documents/2023-03/IPSOS%20-%20Tla%C4%8Dov%C3%A1%20spr%C3%A1va%20-%20informa%C4%8Dn%C3%A1%20vojna\\_15.3.2023.pdf](https://www.ipsos.com/sites/default/files/ct/news/documents/2023-03/IPSOS%20-%20Tla%C4%8Dov%C3%A1%20spr%C3%A1va%20-%20informa%C4%8Dn%C3%A1%20vojna_15.3.2023.pdf)>.

KELLER, K. L.: *Strategické řízení značky*. Prague : Grada, 2007.

KOLÁR, T., SLADKOVSKÁ, I.: *Duch Kyjeva je mŕtvý. Na konte má až 40 zostrelených ruských lietadiel*. Released on 29<sup>th</sup> April 2022. [online]. [2023-05-05]. Available at: <<https://www.startitup.sk/duch-kyjeva-je-mrtvy-na-konte-ma-az-40-zostrelenych-ruskych-lietadiel/>>.

LIUBCHENKO, Y. et al.: Political Communication in the Post-Truth Era: Mind Mapping Values of Ukraine's Volodymyr Zelensky. In *Communication Today*, 2021, Vol. 12, No. 2, p. 147-167. ISSN 338-130X.

MARTIN, N.: *Forbes: How Social Media Has Changed How We Consume News*. Released on 30<sup>th</sup> November 2018. [online]. [2021-05-05]. Available at: <<https://www.forbes.com/sites/nicolemartin1/2018/11/30/how-social-media-has-changed-how-we-consume-news/?sh=54044e963c3c>>.

MILO, D. et al.: *Mapovanie zraniteľnosti slovenskej republiky v oblasti hybridných hrozieb*. Bratislava : Globsec, 2018.

*Mýty a fakty o Ukrajine*. [online]. [2022-10-02]. Available at: <<https://www.mzv.sk/aktualne/ukrajina/myty-a-fakty-o-ukrajine/>>.

NEWMAN, N. et al.: *Reuters Institute Digital News Report 2020*. Oxford : Reuters Institute for the Study of Journalism, 2021.

OSTROŽOVIČOVÁ, B.: *Informačná vojna (prieskum CZ+SK)*. Released on 21<sup>st</sup> July 2022. [online]. [2023-03-06]. Available at: <<https://www.ipsos.com/sk-sk/informacna-vojna-prieskum-czsk/>>.

PETSYK, Y.: *Impact of War on Youth in Ukraine*. Kyiv : UNDP, 2023.

PISKLOVÁ, M., SÝKORA, J. (eds.): *Dezinformácie a V4*. Bratislava : Slovak foreign Policy Association, 2021. [online]. [2023-03-08]. Available at: <<https://www.sfpa.sk/wp-content/uploads/2021/08/Dezinformacie-a-V4.pdf/>>.

PLICHTOVÁ, J.: *Metódy sociálnej psychológie zblízka. Kvalitatívne a kvantitatívne skúmanie sociálnych reprezentácií*. Bratislava : MÉDIA, 2002.

*Podľa ministra Naďa je nepravdepodobné, že by Rusko napadlo Slovensko*. Released on 24<sup>th</sup> February 2022. [online]. [2023-01-11]. Available at: <<https://www.trend.sk/spravy/j-povazujeme-nepravdepodobne-rusko-napadlo-sr-2/>>.

SOLÍK, M.: *Uznanie ako problém spravodlivosti a jeho mediálna reflexia*. Trnava : FMK UCM, 2021.

SPÁLOVÁ, L., MIKULÁŠ, P., PÚCHOVSKÁ, O.: Attitudes towards Different Influencer Categories – Exploration of Generation Z. In *Communication Today*, 2021, Vol. 12, No. 1, p. 57-58. ISSN 338-130X.

UKRAINE: *People Call Him the Ghost of Kyiv*. Released on 27<sup>th</sup> February 2022. [online]. [2023-02-02]. Available at: <<https://twitter.com/ukraine/status/1497834538843660291/>>.

*Ukrajina priznala, že údajný pilot nazývaný "Duch Kyjeva" je mýtus*. Released on 2<sup>nd</sup> May 2022. [online]. [2023-02-02]. Available at: <<https://spravy.pravda.sk/svet/clanok/625277-ukrajina-priznala-ze-udajny-pilot-nazyvany-duch-kyjeva-je-mytus/>>.

UNITED NATIONS: *Ukraine: Civilian Casualty Update 14 August 2023*. Released on 14<sup>th</sup> August 2023. [online]. [2023-08-30]. Available at: <<https://www.ohchr.org/en/news/2023/08/ukraine-civilian-casualty-update-14-august-2023/>>.

URBÁNEK, T.: *Psychosemantika. Psychosemantický prístup ve výskumu a psychodiagnostice*. Prague : Pavel Křepela, 2003.

VILMER, J. J. et al.: *Information Manipulation – A Challenge for Our Democracies*. Paris : CAPS & IRSEM, 2018.

VRABEC, N., PETRANOVÁ, D., SOLÍK, M.: New Role Models for Slovak Youth in the Context of Media Communication. In *European Journal of Science and Theology*, 2014, Vol. 10, No. 4, p. 143-153. ISSN 1842-8517.

YALCIN, T., NISTOR, C., PEHLIVAN, E.: Sustainability Influencers: Between Marketers and Educators. In *Business Forum*, 2020, Vol. 28, No. 1, p. 1-11. ISSN 0733-2408.

YAR, L.: *Výše 90 percent mladých Slovákov a Sloveniek je na sociálnych sieťach, viac ale zaujímajú dievčatá*. Released on 5<sup>th</sup> January 2021. [online]. [2022-10-02]. Available at: <<https://euractiv.sk/section/digitalizacia/news/vyse-90-percent-mladych-slovakov-a-sloveniek-je-na-socialnych-sietach-viac-ale-zaujimaju-dievcata/>>.