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

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).1 The lack of media literacy associated

The development of critical thinking has been noted for a long time in the V4 countries, and alarming findings were identified in relevant sources – more than a third of the population believes in conspiracies and the popular media has long been a source of these beliefs. The definition of young people as generation Z – 24 use Facebook, Instagram, Snapchat and/or other social media services. 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 proactivity towards political parties focusing on the national or traditional family policy. 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, 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. The social benefits of an online presence for vulnerable groups are multifaceted and subject to scientific scepticism. One of the main reasons is that social media platforms are increasingly being centred around the field of social sciences 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 plays a specific role in the resilience of recipients.

Within the EU, Slovakia is one of the most vulnerable countries to hybrid threats. The situation is framed by the popularity of the Internet as an information medium. According to a Reuters survey, 70% of Slovak citizens use the Internet as their main information source. At the same time, we have also noted the global scale that the positions of traditional media are being overtaken by the Internet, especially by social media. The Reuters Institute Digital News Report 2018 research report suggested that Facebook is the main digital news source, since more than 43% of all fake-news-consuming users primarily access fake news via Facebook. And social media are undoubtedly one of the most visible signs of our times. According to the statistics, 71.7% of Slovaks used them in 2020, marking a growth of 0.2% compared to the previous year. The success of digital social media with the younger population has been enormous. In Slovakia, more than 90% of young people aged 10–24 use social media, especially Facebook, Instagram, Snapchat and/or other social media services. According to European standards, Slovak society is unusually prone to conspiracy theories and disinformation. At the same time, it is characterised by extremely low trust in democratic institutions and the media. The population’s support for liberal democracy as a system based on freedom, equality and human rights is also in decline.

The war in Ukraine, also referred to as the “Russian invasion of Ukraine” or “occupation of Ukraine”, broke out on 24th February 2022. The conflict is an escalation of Russia’s long-term attempt to control Ukraine, which began in 2014 with the annexation of the Crimea Peninsula and armed tensions in the Donbass. The conflict is so much more than a war between two states (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 media are being increasingly accentuated in the field of social sciences 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.

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

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,24 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.25 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.26 At the same time, only slightly more than half (54%) of Slovaks consider Russia a security risk.27 Negative sentiment towards Ukrainian refugees prevails (69% vs. 59%)28 and only 39% of Slovaks show complete sympathy for Ukrainians, while the pan-European average is at the level of 54%.29 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.30 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.31 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”?32

The aim of this research was to identify the understanding of concepts associated with the onset of the 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.

25 Remark by authors: The research was carried out in eight East European countries: Poland, Lithuania, Latvia, Czech Republic, Romania, Hungary, Bulgaria and Slovakia.
30 Description: Concepts with affinity to effective media types and media tools
31 Description: Referential concepts associated with the attitude towards Russia’s military invasion of Ukraine
32 Source: Own processing

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 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

<table>
<thead>
<tr>
<th>REFERENTIAL CONCEPTS</th>
<th>MEDIA STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine, Russia, USA, President Zelensky, President Putin</td>
<td>Ghost of Kyiv</td>
</tr>
<tr>
<td>Special Military Operation</td>
<td>Special Military Operation</td>
</tr>
<tr>
<td>Citizen, follower, Internet troll</td>
<td>Speech</td>
</tr>
</tbody>
</table>

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

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

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, 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 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.

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 20th 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 mythical 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. 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 13th March 2022, just weeks after the invasion began. However, a little later (in May 2022), 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.” 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 initial 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 numbers 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. 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%). 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 negative attitude towards information warfare and pro-Russian narratives. This seems to indicate that the digital resilience of Generation Z regarding Russian propaganda is lower in the case of standard media strategies, but we noted a low negative attitude towards information warfare and pro-Russian narratives. This seems to indicate that the digital resilience of Generation Z regarding Russian propaganda is lower in the case of standard media strategies, but we noted a low negative attitude towards information warfare and pro-Russian narratives.
5 Conclusion

The Russian Federation attacked Ukraine on 24th 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 attention and transformed the way we perceive the beginning of the war and the extension of the war in the 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 embracing 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 embracing disinformation.

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 succeeded 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.

Acknowledgement: The study is the result of CEDMO project, which is co-funded by the European Commission under the call CEF-TC-2020-2 (European Digital Media Observatory), Reference: 2020-EU-IA-0267.

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Interesting findings were also made when comparing the perceptions in the countries involved. The USA is in the positive segment, close to给自己, 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 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. There have been speculations in the media since the beginning of the invasion that Russia might also attack Slovakia militarily, but rational arguments to the contrary prevailed. 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 (abuse). A real solution is offered in esperity – a concept located in the positive segment and close to Self. An ideal solution is the activity of accepted authorities, President Zelensky 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.

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