

The Game Space of “Information Disorder”

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Abstract

Indirect countermeasures against hostile propaganda appear to be more effective than overt struggle and are becoming more common. U.S. digital diplomacy increasingly employs online games that teach players about information manipulation, aiming to “inoculate” them against attempts to change their convictions. However, the Western academic community has largely ignored the games’ possible risks and ulterior motives. In this paper, three online games of the Department of State and Cambridge University are examined: *Bad News*, *Harmony Square*, and *Cat Park*. Through experiments

and follow-up surveys, the authors find that, along with “useful” inoculation, these games also advance the “soft disempowerment” of Russia and its media, more generally suppressing the soft power of non-Western-aligned states.

Keywords: soft power, soft disempowerment, media literacy, online games, digital diplomacy, U.S., Russia, *Bad News*, *Harmony Square*, *Cat Park*.

Amidst soaring international tensions, the concept of ‘soft power’ has been losing its appeal recently. As a result, there emerged the concept of ‘soft disempowerment.’ British scholars Paul Michael Brannagan and Richard Giulianotti defined it as instances when “competitors (states, the media, corporate entities and non-governmental organizations) publicly shame opponents for any perceived immoral, unethical and/or illegitimate (in)actions” (Brannagan and Giulianotti, 2018, p. 1145). Soft disempowerment has had a decisive impact on the development of the information space of world politics in recent years. As one of the powerful tools used to suppress the soft power of alien states it signals “a new round of confrontation in the sphere of education, socialization, and media” (Sutyryn, 2023, p. 3).

Contemporary information wars are primarily confined to struggles for hearts and minds using digital technology. Overt online counterpropaganda methods such as deplatforming (e.g., of Donald Trump on Twitter) or banning entire platforms (e.g., RT and Sputnik) are often counterproductive. “Mutually assured delegitimization” is their inevitable consequence. Like mutually assured destruction, the open confrontation of foreign ministries on social media is a lose-lose situation, as the images of both the accuser and the accused are equally tarnished (Manor, 2023). This is “the dark side of digital diplomacy” (Bjola and Pamment, 2018).

Many studies of digital diplomacy in different countries have unequivocally found that official government accounts are unable to compete in terms of influence with the personal accounts of opinion

leaders and populists. Therefore, since 2017, researchers have renewed their focus on what the state should do to advance its own agenda in an ocean of “information disorder” (Wardle and Derakhshan, 2017). An unexpected and non-obvious answer is **online games teaching resistance to disinformation**, focused on controlling the thinking of target audiences. These could allow diplomats to give up fighting fake news and chasing ‘interactions,’ and return to the rules of diplomatic etiquette, leaving the dirty work to online game developers.

This article assesses the effectiveness of online games teaching resistance to hostile information operations. The research aims to examine ‘soft disempowerment’ in different languages’ versions of anti-disinformation online games.

TWO STRATEGIES OF “SOFT DISEMPOWERMENT” IN DIGITAL DIPLOMACY: FROM DEBUNKING TO PREBUNKING

Soft disempowerment is meant to reduce the potential of another state in the information space. “If soft power resources resemble tap water entering the top of our water filter jug, then in the same analogy soft disempowerment takes the role of accompanying water impurities (bacteria, toxins, viruses, pesticides, sulfates)” (Brannagan and Giulianotti, 2018, p. 1152). The two key strategies of soft disempowerment are **debunking** and **prebunking**.

Debunking has been used by the West and Russia regarding the Ukraine and COVID-19 crises. It consists of identifying “fake news” and then refuting it. News agencies, research institutes, think tanks, non-profit organizations, and networks of experts and academics have been engaged in debunking (Lapsha.Media, 2023; Institute for Strategic Dialogue, 2023). Rebuttal sections can be found on the official websites of foreign ministries (the Russian Ministry of Foreign Affairs, 2023) and international organizations (World Health Organization, 2020).

However, the U.S. Department of State’s Global Engagement Center (GEC) has already closed down its debunking initiatives, stating that “the GEC’s work to elevate technology solutions to disinformation challenges continues with new projects designed to adapt to the current environment” (DoS, 2023a).

The reasons for this U.S. shift away from debunking lie in its inherent weaknesses.

Firstly, officials, organizations, and Internet platforms simply do not have the resources to monitor and expose every single piece of fake news. AI might seem promising here, but it is imperfect, and might create more problems (e.g., deepfakes) than it solves. It is unclear when a post should be considered disinformation, or just a different interpretation of events.

Secondly, the audience exposed to the fakes may overlook the rebuttal. For example, during the COVID-19 pandemic, “myth-busting” resources had four times less traffic than sites with misleading content (Statista, 2022). The audience may also continue to believe what it has read because of the “continued influence effect” (Fernandes da Costa e Silva and Presser, 2023) or because of the “illusory truth effect,” in which repeated exposure creates belief. “Repetition may be one way that insidious misconceptions enter our knowledge base” (Fazio et al., 2015, p. 993). Thus, the effectiveness of rebuttals may fall short of the expectations.

The other strategy—*prebunking*—involves “psychological inoculation” against the “virus” of disinformation (Traberg, Roozenbeek and van der Linden, 2022). One of Inoculation Theory’s founders, American social psychologist William McGuire, postulates that an individual may develop immunity by repelling *attacks that are deliberately weak*: “A final approach to conferring resistance to persuasion involves giving the person some specific training that would enhance his or her ability to adhere to his or her belief when subsequently confronted with influence attempts” (McGuire, 1964). Like a vaccine containing a dead or weakened pathogen that triggers a mechanism of forming antibodies to a disease, a preventive dose of counterarguments (in this case, disinformation) directed against the individual’s beliefs allows the person to become more resistant to information attacks in the future.

The main question is how to carry out “mass vaccination.” One solution is school, university, and online media literacy courses, which have proven effective in combating misinformation (Jeong,

Cho and Hwang, 2012). However, with the development of digital technology, another tool—*online training games*—has been gaining popularity, since “gamification can provide short-term motivation to get students engaged with a topic that they might otherwise avoid” (Becker and Nicholson, 2016, p. 71). According to the statistical agency Zippia, 67% of surveyed students prefer lessons with an added game. Gamification helps them improve their academic performance by 34% and productivity by about 50% (Boskamp, 2023).

States take online games seriously, seeing them as another means of persuasion (Schulzke, 2014). Since these tools are able to hold the attention of their audience for a long time, it becomes easier for governments to deliver coded meanings to the consumer. This happens also because playing a game implies the user’s “acceptance or declaration of a certain value system and the model of behavior set by it” (Belov, 2021). As intercultural interaction research shows, online games also have the potential to “reinforce or weaken stereotypes” (Shliakhovchuk and Muñoz García, 2020), and influence the individual’s behavior (Gentile, 2011). “Overall, whether video games have a negative or positive influence on others depends heavily on their content” (Greitemeyer, 2022).

Today, research into anti-disinformation online games has focused on *proving their usefulness*. Researchers at the University of Cambridge Department of Psychology have found that such tools can indeed reduce trust in manipulative messages: “The game draws on an inoculation metaphor, where preemptively exposing, warning, and familiarizing people with the strategies used in the production of fake news helps confer cognitive immunity when exposed to real disinformation” (Roozenbeek and van der Linden, 2019).

Very few works examine the *negative* effects of such online games. Some have noted the games’ ability to change players’ political opinions and behavior: “The results showed an impact of playing a political game on their knowledge and opinion about the issue addressed in the game. This explorative research among developers of online political games and the people who play them has highlighted how these games may contribute to the development of political engagement” (Neys and

Jansz, 2010). Finally, some authors argue that inoculation-theory-based games reduce players’ trust in online information in general. “Playing the BNG [Bad News Game] reduced belief in false Tweets. But playing the BNG also reduced belief in true Tweets to the same or almost the same extent” (Graham et al., 2023).

“MASS VACCINATION” AGAINST DISINFORMATION: ONLINE GAMES FOR THOUGHT-MANAGEMENT

In all, we managed to find six publicly-accessible, Western-developed, inoculation-theory-based online games: *Bad News*, *Harmony Square*, *Go Viral!*, *Cat Park*, *Cranky Uncle*, *Trust & Safety Tycoon*.¹ A separate application for *WeChat* was created in China for research purposes (Hu et al., 2023), but no additional information on the large-scale development of such games in the PRC could be found.

We selected three of the six games because they: a) have a Russian-language version, b) are thematically related to politics, and c) were created at the request of the U.S. Department of State and/or Cambridge University. These are *Bad News* (Cambridge University involvement) and *Harmony Square*, and *Cat Park* (ordered by the State Department via Cambridge). All were developed by the Dutch company Tilt and have localized versions. According to the U.S. Department of State (DoS, 2022a), “the rollout of each new version of the game also includes localization to ensure the jokes and critically the learning goals of the game resonate with new audiences” (p. 71), while the central storyline remains intact.

The games ask the players to spread knowingly false populist messages as, according to the scenario, they supposedly enjoy broad support among the fictional population. This may inflict soft disempowerment upon real-life messaging that seeks maximal outreach—not necessarily through false information but using, for example, emotional appeals. As Mike Benz, the founder of the

¹ *Bad News*. Available at: <https://www.getbadnews.com/en>; *Harmony Square*. Available at: <https://harmonysquare.game/>; *Cat Park*. Available at: <https://catpark.game/>; *Cranky Uncle*. Available at: <https://crankyuncle.com/>; *GO VIRAL!* Available at: <https://www.goviralgame.com/>; *Trust & Safety Tycoon*. Available at: <https://trustandsafety.fun/>.

Foundation for Freedom and former DoS official, notes, “...propaganda games [are] intended to make young people around the world view populist content online as being de facto ‘disinformation’” (Benz, 2022).

These games focus on the way information is presented and can hardly teach players to independently verify facts. The analytical magazine *War on the Rocks*, in an article on teaching digital literacy to the U.S. military personnel, discusses the potential of online games for modeling society. The comments to the article suggest that “Gaining digital literacy helps modernize people and their ability to navigate a changing world” (Singer and Johnson, 2021).

According to the game developer Tilt, as of December 2022, *Bad News* was played about 8,000 times per week, *Harmony Square* 1,600 times per week, and *Cat Park* a total of over 5,000 times just one week after its release in November 2022 (Tilt, 2022). A 2022 Department of State report states that *Harmony Square* was played about 400,000 times in its first two years of existence (DoS, 2022b, p. 6). In a NATO report, the developers of *Bad News* mention about 15,000 respondents to a survey built into the game back in 2019 (Roozenbeek and van der Linden, 2021). However, neither Tilt, nor the U.S. Department of State, nor the NATO report specify whether these statistics reflect the number of unique users or only the total number of playthroughs. Indeed, even in the case of respondents, the *Bad News* effectiveness study may have counted repeat playthroughs of the game, since the data collection form is anonymous and embedded in the game itself.

THE SIDE EFFECT OF MEDIA LITERACY: A NEW LEVEL OF DIGITAL ACTIVISM

U.S. digital diplomacy has long focused on building global networks of like-minded individuals, capable of achieving their goals through digital fluency. Media literacy is a new level of training for such digital activists. Whereas in the past young people were briefly instructed in how to use a VPN, now they receive more comprehensive and nuanced knowledge. “Media literacy is the ability to access, analyze, evaluate and *create messages* across a variety of contexts” (Livingstone, 2004, p. 3). “Media literate” digital activists can “softly” delegitimize

alternative perceptions of global developments, and thereby reinforce U.S.-preferred points of view, among their target audiences.

“Vulnerable groups” are the target audience for U.S. media literacy programs. The Department of State applies this term to those in volatile regions who are “vulnerable to disinformation provided by outside players with malign interests in the region, particularly Russia and China” (DoS, 2022a, p. 223), terrorist groups (DoS, 2022a, p. 71) or even (in the Balkans) transnational criminal organizations (DoS, 2022a, p. 221). The Department of State does not publicly discuss “vulnerable groups” in other regions.

Despite views that American programs are targeted at Russian-speaking people in the post-Soviet and Eastern European countries (Tsvetkova, 2016), *Bad News* and *Harmony Square* are localized not only in Russian, but also in Lithuanian, Latvian, Estonian, and Ukrainian. In Ukraine, *Harmony Square* was even included in the list of learning tools recommended by the national media literacy project Filter (Filter, 2023). This may indicate a gradual shift in the priorities of U.S. digital diplomacy.

According to a 31 October 2022 DoS document (not originally intended for public access, but obtained by the Foundation for Freedom), the intended age of *Cat Park* and *Harmony Square* players is 15 and older. The latter game has been used “by embassies in a variety of ways, including: for counter-disinformation-focused educational initiatives (Ukraine), by foreign governments ahead of national elections (Latvia), as a part of regional English language programming (Iraq), by social media influencers (Saudi Arabia), and at American Spaces around the world as a strategic educational tool to counter disinformation at its most basic level” (US Department of State, 2022b, pp. 6-7).

It is noteworthy that these games are meant for people living outside the United States. According to the “About This Game” page of the *Cat Park* website: “The U.S. Department of State’s Global Engagement Center (GEC) and U.S. Embassy The Hague financially supported the development of *Cat Park* <...> to counter foreign adversarial propaganda and disinformation impacting non-U.S. populations” (Cat Park, 2023).

FIND 5 DIFFERENCES: AN EXPERIMENT WITH LANGUAGE VERSIONS OF ONLINE GAMES

Currently there is a significant body of work in the academic literature that analyzes massive online video games (see Fernández-Vara, 2019) and their narratives (Ensslin, 2014). There is also growing research regarding the effect of text-based online game ‘inoculation’ on players’ ability to expose disinformation (Roozenbeek and van der Linden, 2019) or overall level of trust in information (Modirrousta-Galian and Higham, 2023). But scholars have not yet developed methodology to analyze online disinformation games as tools of “soft disempowerment.” We propose one, consisting of an experiment and a subsequent survey of the experiment participants.

We hypothesize that Russian-language versions of the games will aim to disempower Russia, whereas English-language versions will be “neutral” to Russia. The Russian-speaking audience, when comparing the two versions of the same game, will notice manipulative politicized elements.

The participants in the experiment, conducted at the end of May 2024, consisted of 53 students of international affairs mostly from Russia, but also from Ukraine, Armenia, Greece, Croatia, Latvia, Lithuania, China, and France, including 51 third-year undergraduate students aged 18-24, one master’s student, and one graduate student aged 25 to 34; 51% of the respondents were female and 49%, male. All respondents fall within the U.S.’s “vulnerable” target audience, as they are politically active young people residing permanently or temporarily outside the United States in the former Soviet Union. Initially, participants were asked to choose and play one or more of the three games in Russian and English. Each student played both versions of the game (the total of 53 playthroughs for each language). Plus: French (6), German (5), Spanish (3), Armenian (1), Greek (1), Ukrainian (1), Czech (1), Chinese (1), Croatian (1) and Serbian (1).

Harmony Square was played 22 times, *Bad News* 27 times, and *Cat Park* 19 times. The respondents spent an average of 10 minutes to complete one game. Then they were asked to answer multiple-choice and free-response questions, in Russian or English, online. They were

asked to compare differences in the language versions, and to find references to the realities of the country of the language version's origin. Additional questions concerned the applicability of the skills acquired in the game and the emotions that the games evoked. Recordings of playthroughs were preserved.

After playing the games, 20 respondents (36%) said they had noticed significant or insignificant differences in the translations while 17 respondents (30%) *did not notice any differences at all*. Responses exposing translation inaccuracies and lexical and grammatical errors were highlighted to assess the game's adaptation in various languages.² Asked if there were references to historical/interethnic conflicts, to specific politicians, or to any political tensions, 23 respondents answered affirmatively (42%) and 29 answered negatively (53%), one participant left the question unanswered. Some noticed changes in the names of the game characters and adaptations of the titles in the translation, as well as differences in the questions following the game to reinforce what they had learned. Presumably, these questions are part of sociological surveys studying the target audience for digital diplomacy. Such questions are likely of interest, but are beyond the scope of this research.

Our study reveals diverse approaches to different audiences. The Czech-language version of the *Bad News* game contains references to national characters and to the refugee problem by the fictional country's opposition figurehead. Yet the Greek version did not contain any noticeable references to national problems or politics in general, instead focusing on global environmental issues, conspiracy theories, and a pop singer's concert.

In the Ukrainian-language version, a 93% turnout in the elections is compared to that of Belarus (in other versions the comparison is made to North Korea), and a journalist who can be attacked with brilliant green (*zelyonka*) is named 'Moseychuk,' allegedly after the actual Ukrainian journalist Natalya Moseychuk.

² It was important to analyze typographical errors and inaccuracies across different language versions. This information served as a critical indicator of the game's adaptation in various languages, permitting us to assess the precision of localization, which directly reflects the developers' commitment to deliver a culturally sensitive product. The presence or absence of such errors is indicative of the user's attention to detail and experience in different linguistic contexts.

In the English-language versions, many respondents noticed references to Biden and conspiracy theories (e.g., aliens). In the German version, one of the respondents even noted that the conspiracy discourse was “embedded” into the language of the game: similar conspiracy speech patterns are used.³ The Russian-language version positions the ‘Donetsk News Agency’ as a channel spreading fake news, it discusses political tensions between Russia and the Baltics, Europe, and NATO, and it uses the hashtag #NeverBeKGBists (#НеБудьтеКГБистами).

Playing the games separately from the respondents, we noticed references to the Russian media. In *Harmony Square*, the Ukrainian version’s fake channel was *Harmonya Today*, and in the Latvian and Slovenian versions *Argumenti un Fakti*, possibly alluding to the Russian international broadcaster and weekly magazine. The only version of the *Cat Park* teacher’s manual available on the game’s website explicitly accuses Russia of “disinformation” (U.S. Department of State, 2023b).

Finally, in terms of the skills acquired through the game, the respondents cited the ability to identify falsehoods and strategic and critical thinking. A vast majority (78%) of them said that the skills learned would be helpful against social media fakes. However, 61% of the respondents still feel that these skills could be applied beyond their intended purpose. Almost half of the respondents had positive emotions about the game (49%), 45% said they had a neutral attitude to the game, and only 5% had developed a negative attitude.

“INOCULATION” AGAINST DISINFORMATION OR INCONSPICUOUS INDOCTRINATION?

Western online counter-disinformation games are based on the Inoculation Theory and provide instruction in the methods of online information warfare—trolling, anonymization, conspiracy theories, discrediting of the opponent, polarization, and fictitious experts. The games’ popularity and prevalence are difficult to assess, but the activity of their developers indicates that the tool is in demand. Since 2018, the Cambridge Social Decision-Making Lab alone has been involved

³ The respondent noticed specific linguistic features in the game that resembled the way conspiracy theories are often articulated.

in at least five gaming websites, two of which were created under the aegis of U.S. digital diplomacy. The geography of their use is also expanding as the number of translated versions grows. Currently, the three analyzed games—*Harmony Square*, *Bad News*, and *Cat Park*—have 32 language versions.

At this point it is difficult to access the scope and efficiency of such games for media literacy. Yet one trend is clear: while reducing trust in manipulative messages, such games also reduce user trust in online information in general. The essential problem is that games do not teach information verification—which presumably must be part of the fight against disinformation—but only teach *which message format or sender is untrustworthy*. The negative consequence of interacting with such games—and their likely real purpose—is *inconspicuous indoctrination*. Western educational online games dam the digital-diplomacy channels of states with different agendas and sources.

U.S. digital diplomacy in recent years has used online counter-disinformation games to influence “vulnerable audiences” (e.g., those exposed to Russia’s or China’s information influence). The games’ developers claim that they merely develop the target audiences’ immunity to false news, but they conceal the games’ direct references to *political* realities, aimed at delegitimizing real and specific media sources, personalities, journalists, states, etc. Our analysis has shown that the games mix “useful” inoculation (training to identify manipulative uses of information) with the delegitimization of other countries’ policies. Paradoxically, *online games against disinformation work as an efficient “soft” tool of information confrontation*.

The experiment and methodology described herein can be helpful in further research into *the adaptability of online anti-disinformation games to various target audiences* using a wider scope of language versions. In the languages of “vulnerable groups” (Latvia, Ukraine, Russia) the games tend to contain references to political situations, while the content in other languages is confined to abstract conspiracy theories (Germany, Greece).

It should be separately noted that the games also *collect information about the users’ political views* through pre- and post-play questions and

through the playthroughs themselves. The active promotion of such games is not accidental: while presented as an entertainment they can also teach young people how to run *aggressive information campaigns*. It is for good reason that *The Economist* (2023) wrote: “In Cat Park players learn to become disinformation warriors.”

As these games multiply, they require more public scrutiny and creation of a database to timely monitor the updates and give them a thorough academic examination.

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