DIGITALIZATION AND STRENGTHENING RESISTANCE TO MISINFORMATION IN UKRAINE AS THE INSTRUMENT OF STRATEGIC COMMUNICATIONS

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Abstract: The article is devoted to the relationship between digitization and stability strengthening of opposing disinformation in Ukraine through the development of digital skills of the population, including politicians and government officials. According to the European Business Association, only 53% of Ukrainians possess basic digital skills, and the issue of digital illiteracy is faced by 31% of the population. The government is implementing the concept of developing digital competences for citizens of Ukraine. Projects such as "Filter" and the campaign "Nations against Disinformation" are aimed at increasing media literacy and awareness of disinformation. Implemented programs focus on the development of critical thinking skills and collaboration with international partners, including IREX and the Ministry of Foreign Affairs of Great Britain. Initiatives such as the "School of Counteracting Disinformation" and the Disinformation Counteraction Center contribute to education and development of counter-disinformation strategies. The article also examines digital transformation in Ukraine as a main element of the country's resilience after the Russia-Ukraine war. The "Diia" project has received global recognition and contributes to the dissemination of Ukrainian technologies in other countries, enhancing Ukraine's global role in the digital space. It is emphasized that research is important especially in the era of information technologies, and the specified topic becomes extremely relevant in the context of the Russia-Ukraine war.

Keywords: digitalization; digital skills; disinformation; media literacy; strategic communications; digital transformation; cyber security; media diplomacy; diplomacy; foreign policy; technologies.

1 Introduction

Digitization and stability strengthening to overcome disinformation in Ukraine are critical aspects of strategic communications, especially in the age of information technology, and represent an extremely relevant topic for research during the Russia-Ukraine war. Let us consider these aspects and how they can serve as strategic communication instruments. Digitalization mainly concerns to: online communication platforms: development and support of official websites, social networks, and other online platforms for effective communication with the public; the usage of digital channels to distribute important information and ensure its credibility; electronic services for citizens (implementation of electronic services for obtaining information, platforms for citizen appeals and providing of public services); ensuring cyber security of electronic systems to prevent unauthorized access and maintain public trust; e-education and educational content: implementation of e-education to increase information literacy of citizens and teach them to recognize misinformation; development of digital educational content to support citizens in understanding complex issues. In turn, the stability strengthening to fight misinformation occurs through the improvement of media literacy: the development and implementation of media literacy programs in the educational system and public space; popularization of critical thinking and ability to analyze information; fact-checking and information monitoring, ensuring the availability of independent fact-checking resources for information verification; implementation of disinformation monitoring and analysis systems to react promptly for spreading false information; stability of the authorities positions, ensuring the unity and stability of the positions of the authorities on important issues to avoid confusion in communication; implementing effective communication to reduce the possibility of confusion of facts and misinformation; public involvement, support for civil society initiatives and projects to identify and counter disinformation; facilitating the interaction of authorities with citizens through various online tools.

So, the overall goal is to use digitalization to improve communication between government and public and to make society resilient to misinformation based on education, fact-checking, and effective communication.

The aim of the study is to analyze the processes of digitalization and strengthening resistance to disinformation in Ukraine as the instrument of strategic communications, especially during the Russia-Ukraine war.

2 Method

The main methodological principle applied to the analysis of the material is a perceptual, or addressee-oriented, approach, the essence of which is to explain communicative successes or failures through the mechanisms of perception of the message by the addressee. In addition, the work uses methods of definitional, semantic, and contextual analysis. The study also used linguistic-stylistic and pragmalinguistic analysis, general scientific methods of observation, generalization, and comparison of linguistic facts.

3 Results and Discussion

The 2020 National Security Strategy of Ukraine highlights that one of the main state directions of foreign and domestic political activities to ensure its national interests and security is active and effective resistance to special information operations, cyber-attacks, and other forms of propaganda. It is also stated that Ukraine will develop an inclusive political dialogue through the creation of a strategic communications system, raising the society' level of media culture, guaranteeing the safety of journalists while performing their professional duties, as well as developing competition in the field of providing information services to the population. The document states that Ukraine will carry out digital transformation, ensure the provision of administrative services using modern information technologies and spread digital literacy [6].

Firstly, optimizing of digitalization processes and strengthening resistance to disinformation are directly related to the development of digital competences of citizens, including politicians, civil servants, and diplomats. The expert study conducted by the European Business Association in 2021, known as the "Digital Transformation Index 2021", showed that 53% of Ukrainians have digital skills below the basic level, while 15% of Ukrainians have no digital skills at all. The results of the research showed that the main problem of the development of digital transformation for 31% of respondents is the lack of digital literacy [24]. In order to improve these statistics, on March 3, 2021, the Cabinet of Ministers of Ukraine approved the Concept of the Development of Digital Competencies until 2025, which emphasizes the importance of digital literacy for citizens [5]. The strategic goal of the Concept is educating 6 million Ukrainians in digital literacy within three years. According to the Ministry of Digitalization of Ukraine, the creation of such a Concept "synchronizes the basic concepts and requirements within the framework of digital competences with European standards, modernizes the processes of public administration, reduces the digital gap, harmonizes the national digital market with the European Union, accelerates the implementation of electronic democracy and electronic governance tools" [8].

Additionally, in 2021, on the basis of the European conceptual reference model of digital competences for citizens, the Ministry of Digital Transformation of Ukraine developed the "Framework of Digital Competences for Citizens of Ukraine" taking into account its national, cultural, educational and economic features.

As stated in the document, the development of digital technologies opens a "new window of opportunity" for Ukraine, therefore "taking advantage of these opportunities is a serious challenge and an important task for Ukrainian society". The document also contains the narrative stating that in the context of the fourth industrial revolution, digital competence is the key competence that involves "confident, critical and responsible usage and interaction with digital technologies". Digital competence encompasses the concepts of information literacy, media literacy, communication and collaboration, creating digital content together with programming, protecting personal data in the digital environment and cyber security, solving multifaceted problems and continuous learning. Thus, the Framework and its description are considered a guidebook on digital competencies for citizens of Ukraine, outlining a specific scope of knowledge and practical skills necessary for a wide range of citizens for comfortable usage of modern digital technologies [7]. The framework of digital competence for citizens of Ukraine has become a tool through which the level of digital competencies among Ukrainians can be improved and assists in the creation of state policies aimed at the practical usage of IT technology tools and services by specific target groups of population [25].

Secondly, strengthening resistance to disinformation is possible through the development of critical thinking and information hygiene among citizens and state authorities, which aims to strengthen resistance to disinformation, fakes, manipulation and propaganda. In August 2021, the Ministry of Culture and Information Policy of Ukraine presented the national media literacy project called "Filter", which aims to unite and coordinate efforts of the state and partners to form media literacy as an integral skill of modern Ukrainians [20]. According to the Minister of Culture O. Tkachenko, the project unites the efforts of both the public sector and the state in the direction of media literacy, the fight against fakes and disinformation. The minister believes that media literacy should become a pervasive topic for many state authorities, including the need for implementing media literacy courses in schools and universities [18].

According to information from the Ministry of Education and Culture of Ukraine, a comprehensive program has been developed for 2022-2025 aimed at developing and strengthening critical thinking skills and information hygiene in order to strengthening resistance to misinformation, manipulation, and propaganda. The implementation of this program is carried out by several entities, including the International Research & Exchanges Board (IREX) with the support of the U.S. Embassy in Ukraine and the Ministry of Foreign Affairs and International Development of Great Britain in partnership with the Ministry of Education and Science of Ukraine, the Ministry of Culture and Information Policy of Ukraine, and the Ukrainian Press Academy [26].

There are quite a few similar state online initiatives on media literacy supported and facilitated by international partners today. For example, "Very Verified: an online media literacy course" developed by the international organization IREX in collaboration with the online education studio EdEra (the project is funded by the U.S. Embassy in Ukraine and the Embassy of Great Britain in Ukraine with support from the Ministry of Education and Science of Ukraine). This project is based on Diia platform. Digital Education has created an educational series with the same name as "Very Verified: an online course on media literacy" [9]. According to the statistics of anti-fake organizations in Ukraine, older people are most affected by disinformation — they spread the most fake news on Facebook during the Covid-19 pandemic, and especially after the full-scale invasion of the aggressor. Therefore, with the aim of increasing media literacy among the elderly, as well as reducing their dependence on daily events and the development of critical thinking, the "Fit in Fakten" project was initiated, which is implemented by the Goethe-Institut in Ukraine in partnership with the Ukrainian popular science media "Kunsht", the Polish Foundation for the Development of the Information Society (FRSI), the German Curanda educational platform and the

Kuringa theater workshop, as well as Kyiv amateur theater "It's not even evening" with the support of the German Ministry of Foreign Affairs.

It is also worth mentioning initiation in 2022 of a new creative tool to counter disinformation called "Nations Against Disinformation", which is the first joint communication campaign in partnership between the Ministry of Foreign Affairs of Ukraine, the Ministry of Culture and Information Policy of Ukraine, the Ministry of Foreign Affairs of Estonia, and the project of the Rapid Response Task Force on Strategic Communications of the European External Action Service (EUvsDisinfo). The "Nations Against Disinformation" campaign is initiated by the Ministry of Foreign Affairs of Ukraine and the Ukrainian civil society organization BRAND UKRAINE, and it is co-funded by the European Union and the National Democratic Institute (NDI). According to the Ministry of Foreign Affairs of Ukraine, this initiative is aimed at raising awareness of the dangers of disinformation, including its serious negative consequences for societies. Partners conduct joint international campaigns, events, conferences, webinars, and workshops to exchange best practices in countering disinformation [19].

The campaign's website states that "disinformation is one of humanity's greatest challenges, it can change the borders of states and undermine democracy, it destroys trust in institutions, spreads chaos, and kills people". On the web resource of the campaign, there is an opportunity to take a test that allows determining "how disinformation affects you" [14]. After we passed such test, we noticed that the "Nations Against Disinformation" site suggests using links to web resources that will help increase resistance to disinformation and learn how to recognize it more effectively, namely:

1. "Civil network "OPORA", which was created in 2005 and is one of the leading all-Ukrainian organizations of public control and advocacy in the field of elections, parliamentary affairs, education, management of common property, energy efficiency, local self-government and comprehensive implementation of open data principles;
2. The NGO and educational platform "Center for Media Reform", founded by the Mohyla School of Journalism (in 2003) with the aim of introducing high standards of journalistic education in Ukraine, raising the level of media literacy, informing about the dangers of propaganda and the spread of fakes in the mass media) and its flagship project StopFake (since 2014), which today is known to media professionals all over the world and has analogues in 13 different languages (English, Romanian, Spanish, Bulgarian, French, Czech, German, Polish, Bosnian, Dutch, Italian, Russian, and Turkish).
3. The NGO "Detector Media", which was created in 2004 by Ukrainian journalists and whose mission is to improve the quality of Ukrainian media, increase the media literacy of Ukrainian society, and counter disinformation and propaganda. "Detector Media" has a special project "Analysis of Social Networks", which uses AI elements to analyze large data sets of the Ukrainian segment of Facebook, YouTube, Telegram, and Twitter.
4. The independent publication TEXTY.ORG.UA, which was founded in 2010 and operates according to the "seven principles of Texts" (texts do not chase daily news; texts focus on what truly impacts our lives; texts expand horizons; texts are interested in people, not target groups; texts include not only facts but also evaluations and conclusions; funding of Texts will never affect editorial independence; texts are always changing).
5. International volunteer community InformNapalm, which was founded in March 2014 and conducts OSINT research (Open Source Intelligence), translates and distributes publications in foreign languages, conducts important media, diplomatic, and educational work.

An important mechanism for countering disinformation through joint efforts between the government and civil society is the

establishment of the Center for Strategic Communications and Information Security at the Ministry of Culture and Information Policy of Ukraine, created in March 2021. As stated on the website of the Center called "SPRAVDI", their activities are aimed at the state and citizens, public organizations and international partners. In the first case, they conduct training sessions to increase awareness of hybrid threats, develop proactive narratives for government communications, and offer mechanisms for systematic informing about state efforts to counter disinformation. In the second, information threats and mechanisms of malicious influence are reported, instruments are provided to increase resistance to disinformation, and victory of Ukraine in the information warfare is highlighted. The third direction involves jointly conducting information campaigns and training sessions, as well as facilitating dialogue between the state and public organizations in developing the regulatory framework. Within the fourth one, Ukrainian expertise in detecting and countering disinformation is being disseminated, along with the joint development of recommendations for countering disinformation and building resilience to it [2].

In July 2022, the Center for Strategic Communications and Information Security established the "Disinformation Resistance School" for the purpose of training civil servants on the topic of strategic communications and countering disinformation. The target audience primarily includes communication teams from central executive bodies and other state authorities, as they are responsible for external communication on behalf of the state and serve as the "first line of defense" against information threats. Studying these categories in countering disinformation, as well as expertise in strategic communications, ensures the process of forming unified approaches of state bodies to communications, namely "one voice policy" [22].

Also, in March 2021, a working body of the National Security and Defense Council of Ukraine was established - the Center for Countering Disinformation, which ensures "the implementation of measures to counter current and projected threats to national security and national interests of the state in the information sphere, ensuring information security of Ukraine, identifying and countering disinformation, effective counteraction to propaganda, destructive informational influences and campaigns, preventing attempts to manipulate public opinion".

Employees of the Center for Countering Disinformation, with the support of the Advisory Mission of the European Union in Ukraine (EUAM), have developed a "Manual on Countering Disinformation". This manual includes sections on techniques and tools of informational influence, hostile resources and tracking possibilities (media resources, deep fakes, Twitter, Telegram, Facebook, and YouTube), cases of informational influence by the Russian aggressor, as well as recommendations for countering harmful informational influence and communicating with the target audience.

According to the Manual, there are 4 stages of public opinion formation:

1. New information (about the event, scientific discoveries, media news, political decisions).
2. Information received from experts and official representatives (commented by experts, officials, etc.).
3. Public information (which becomes widely known and is still being discussed, including in social networks).
4. Recipient (when a person receives information according to his membership in a certain social group, as well as the information channels he uses).

The first and second stages of forming public opinion are combined in the manual under the term "media system"; the second stage is called "public opinion", and the third stage is "cognitive functions of a person". As part of the activities of the Center for Countering Disinformation, various educational trainings are also held, such as the "FIMI - Ukraine" training in October 2023. The training presented the approaches of the European External Affairs Service (EEAS) to countering the threats of foreign information manipulation and interference

(FIMI), as well as the necessary political and diplomatic methods, strategic and proactive communications [11]. In November 2023, the Center for Countering Disinformation together with the Swedish Psychological Protection Agency (MPF) organized a training course in "Combating information influence measures" for representatives of state authorities and leading institutions of higher education [1].

Thirdly, an important aspect is the extensive digitization and digital transformation of the state, as well as the creation and development of digital projects in Ukraine. According to the expert from the independent analytical center in the field of foreign policy and international security "Ukrainian Prism", after many years of the Russia-Ukraine war, modern infrastructure and cyber resilience once again proved the advantages and importance of digital transformation, which is the basis of Ukraine's stability. While initially media diplomacy in Ukraine was perceived as a component of the Public Diplomacy Strategy and was defined more through the "communication dimension", today, taking into account international changes and threats, media diplomacy in Ukraine has changed somewhat. Nowadays, media diplomacy is more about spreading effective digital solutions at the international level [21].

For the past three years, the international community has been fascinated by the experience of digital transformation of Ukraine - both citizens of Ukraine and foreigners from many parts of the world are watching the Ukrainian "state in a smartphone" with delight. As stated on the single portal of state services Diia, the state should become a service provider, not a scary monster. Diia is an online service of public services, where everything is clear and understandable, allowing users to access services when and where they need them; it is also a mobile application with electronic documents and personal data from registers; it is a portal with online courses, in particular on digital literacy; it is a portal that offers assistance to small and medium-sized businesses. Diia provides administrative service centers in every corner of the country and offers a special legal regime for the IT industry. The team of the Ministry of Digitization launched the "Digital State" project, which aims to unite all government agencies into a single convenient and effective online system.

To implement the concept of a "digital state", the Minister of Digital Transformation Mykhailo Fedorov initiated 94 separate digital transformation projects in key areas in February 2021, the content of which can be found in detail on the *Diia.gov.ua* portal. The list of projects has been approved by the Government and must be implemented within three years. Interesting and worth noting is the fact that projects of the Ministry of Digital Transformation such as "Diia.City" and "Diia.Signature" have received awards for their innovation and contribution to the development of the global cyberspace. In June 2022, the "Diia.City" project won the Emerging Europe Awards in the "Modern and Future-Proof Policymaking" nomination. This award honors the projects of those countries that change the life of the developing region of Europe. Winners are selected through online voting for favorite project by people from all over the world. Such a victory in the international arena testifies to the positioning of Ukraine as a powerful IT hub and the creation of conditions for the development of companies or the attraction of investments. Menwhile, another project – "Diia.Signature" became a necessary and important component of building a digital state, and also won the "Best remote identification provider" nomination from the Ukrainian Fintech Award. Diia.Signature technology is revolutionary, because with just a glance, individual' facial biometrics are checked with the biometrics in the register, allowing signing any document. The most secure digital signature in a smartphone holds legal force. This is an extraordinary breakthrough in the digital market, which has not yet been achieved by any country outside the EU.

According to the results of a public opinion survey conducted by the Rating group on May 16-18, 2021, among 2,500 respondents aged 18 and over in all regions (except the temporarily occupied territories of Crimea and Donbas), Ukrainians have the highest level of trust in the "State in a Smartphone" program as the most

digitized public service. In just one and a half year, Ukraine has made a huge breakthrough in digitalization, for example, the world's first passports in a smartphone, the fastest business registration, online change of registration address, registration of property rights, electronic petitions, e-signature and automatic registration of individual entrepreneurs. An analog of the Ukrainian "Diia" is desired to be implemented in several other countries. So, for example, the USA intends to repeat the success of the Ukrainian e-government program in other interested countries. This information was announced by USAID Administrator Samantha Pawer during the World Economic Forum on January 16-20, 2023 in Davos. As part of the forum, an analog of the Ukrainian "Diia" - the Estonian digital application mRiik - was presented at the Diia Reels event. Borrowing the Diia application technology from Ukraine for the digitalization of public services will undoubtedly contribute to a significant replenishment of the state budget of Ukraine, and more importantly, it will lead to the improvement of country' diplomatic relations, as well as global recognition.

It is important that Ukraine, in its foreign policy strategies, has set the goal of promoting its image as a digital country, and not just increasing its power through the promotion of its technologies and digital capabilities. Thanks to the Diia product, Ukraine is recognized as a leader in the field of e-government solutions: in January 2023, Estonia launched the mRick mobile application, which is built on the basis of similar code and design approaches as Diia. Cooperation with Estonia became a precedent for the development and spread of Ukrainian technologies in other countries. Due to this, the American USAID support program will provide support of at least 650,000 US dollars for the spread of the Ukrainian e-government standard in other countries. In total, in the beginning of 2023, 5 countries have already expressed a desire to develop applications in their countries using the Diia prototype. Only at this stage, the Deputy Prime Minister of Ukraine and the Minister of Digital Transformation admitted that Diia has become an element of Ukrainian diplomacy – "It is the brand of Ukraine, it is our reputation, it is the development of our political influence". Diia also represents a case where Ukraine can share its experience with the EU and promote its approach to developing of Digital ID, which the EU plans to implement only in 2024, and then it will be necessary to work on the mutual recognition of EU and Ukrainian digital IDs. In May 2023, Ukraine held the Diia.Summit in Washington [21].

Since 2020, significant progress has been made in digitizing the consular services of Ukraine, particularly with the implementation of an electronic queue mechanism for citizen reception. Using the possibilities of the online form of the Ministry of Foreign Affairs of Ukraine, everyone could register electronically at the consular unit of the relevant Ukrainian diplomatic institution. In the online mode, individuals could select a convenient time and date of their planned visit, as well as find out about the list of necessary documents for the implementation of the corresponding type of consular service [23]. From November 15, 2023, one can register online for consular services using mechanisms such as electronic signature authorization (using file-based, cloud-based, and other secure media), Diia.Signature or BankID of the NBU. The website of the Ministry of Foreign Affairs additionally provides explanations and instructional video materials on electronic identification [10].

As we mentioned earlier, the Ministry of Foreign Affairs actively promotes the interests of Ukraine through digital communication products and companies, examples of which are the websites Ukraine.ua (to spread information about Ukraine as a creative, dynamic, and innovative country) and War.ukraine.ua (to highlighting Russia full-scale war against Ukraine), or the official account of Ukraine @ukraine.ua on the Instagram social network (for the purpose of promoting Ukraine and its national brand). However, in the conditions of a long-term war with Russia, other state bodies of Ukraine, besides to the Ministry of Foreign Affairs, also pay significant attention to the information field of the war. Such an emphasis on the information and media

aspect of state policy by its subjects certainly affects the optimization of media diplomacy processes in Ukraine and leads to the emergence of new mechanisms and tools. One of the examples of such tools, which appeared in response to nowadays realities and the necessity to defeat the aggressor, was the "Anti-War Coalition" created by the National Security and Defense Council of Ukraine (RNBO). As stated on the NSDC web resource, the Russian army kills civilians, destroys houses, schools, hospitals, objects of historical heritage, attacks critical infrastructure, engages in looting, and commits various war crimes without regard for anything sacred [16].

The armed attack by the Russian Federation has led to serious and massive violations of international humanitarian law with catastrophic consequences for the implementation of almost all human rights by the citizens of Ukraine. On the part of the aggressor's army, a huge number of facts have been documented that indicate violations of the rules of warfare, as well as convincing evidence of violations of the Ukrainian people' right to life, property rights, including mass destruction of civilian infrastructure. Examples of violations include instances of torture and cruel treatment, sexual violence – in particular, including gender-based sexual violence at war; these are also violations of the right to liberty and security, including kidnapping and arbitrary or solitary confinement. Thanks to the analysis of a number of Internet resources, such as articles, reports, and statements of representatives of various international organizations (UN, Council of Europe, OSCE, EU), public figures, Ukrainian and foreign mass media, as well as information from social media, the author gave specific examples of violations of human rights in Ukraine and showed how it was perceived by the international community.

For example, on April 13, 2022, the special expert mission of the OSCE published a report on violations of international humanitarian law, human rights, war crimes, and crimes against humanity committed in Ukraine since February 24, 2022. In this report, the experts claimed that Russia had violated IHL and that there was evidence of violations of the right to life, the prohibition of torture, and inhuman and degrading treatment. After the visit of Council of Europe Commissioner Dunia Mijatovych to Ukraine in May 2022, a Memorandum on the consequences of the war in Ukraine for human rights was issued. This memorandum was created on basics of interviews conducted by Dunia Mijatovych with victims and witnesses of serious violations of human rights, as well as relatives of the victims. On June 29, 2022, in the report of the Office of the United Nations High Commissioner for Human Rights based on the results of the work of the United Nations Human Rights Monitoring Mission in Ukraine (UNHRM), during the period from February 24 to May 15, 2022, illegal killings of civilians were documented in more than 30 settlements of Kyiv, Chernihiv, Kharkiv, and Sumy regions. Moreover, in November 2022, the members of the EU Parliament recognized Russia as a state sponsor of terrorism and a state that "uses terrorism" [15].

Considering this, governments of the countries around the world, companies, international organizations, associations, federations, public figures, millions of people around the world have been expressing support for Ukrainians over an extended period of time. Ukraine is very grateful for the assistance, but the Russian invading army and its political leadership continue to commit war crimes on the territory of the country. In view of such circumstances, the "Anti-War Coalition" requires constant strengthened until peace is achieved. The creation of a virtual map makes it possible to monitor the situation on the anti-Putin front online. Through the use of the "Anti-War Coalition" website, any individual can express support for Ukraine.

One can find out how to help Ukraine on the "Help" page of the Anti-War Coalition [13]. The functionality of the website is due to appropriately placed QR codes, allowing help directly through state institutions, through major international funds, through large and medium-sized private initiatives, enabling medical assistance, as well as help to animals. In our opinion, the most interesting content of the "Anti-War Coalition" web resource is

the "Map" page. This is a kind of interactive map, where by selecting a certain country in the world, one can learn about the type of support provided by that country for Ukraine (e.g., Kazakhstan - acts of solidarity and humanitarian aid) and the latest information about the aid with an indication of the date (e.g. China - ready to join a joint initiative of UN with partners to raise funds to support Ukraine in the winter). The functionality of the interactive map is so wide that it allows filtering the option of selecting subjects who have performed at least one act of support according to the selected type (it is possible to select all at the same time). Also, on this map, one can put a filter on the type of support, after which it is possible to additionally choose its subtype. An example of the use of available filters can be the USA, Finnlines Company, EBRD, Bolt.

Evidence of the effectiveness of the usage of media diplomacy methods in the implementation of Ukraine's foreign policy is the usage of digital technologies in the work of not only state and diplomatic institutions, but also non-state participants in international relations. As part of the optimization of media diplomacy processes in Ukraine, it is worth noting the active digital diplomacy of the diaspora, which contributes to maintaining contacts with the country of origin and forming its brand on the international stage. The result of such activities is the initiation of the global virtual forum "Unite with Ukraine" launched in October 2020 by the World Congress of Ukrainians. The forum, which functions as a tool of media diplomacy, was broadcast for all regions of Ukraine, together with Crimea and the rest of the Ukrainian territories occupied by the Russian aggressor. The first such virtual forum in 2020 gathered more than a quarter of a million viewers in Ukraine and the world. During these events, the audience was informed about the role and directions of Congress work, as well as the importance of Ukrainian foreign organizations in the process of restoring Ukraine' independence.

The World Congress of Ukrainians also initiated a massive global campaign on social media called #UniteWithUkraine, which allows supporting Ukraine in its struggle for freedom and independence. Instead, the information campaigns deployed within the framework of such an action are the next example of optimized processes of digital diplomacy in Ukraine. The Congress also creates information platforms and sites where it informs about the needs of Ukraine, the assistance provided to it, and highlights the current events of the Russia-Ukraine war.

Such platforms provide the possibility of subscribing of information digests distribution, establishing business contacts, and also contain details for providing financial support to the Armed Forces. After the full-scale Russian invasion, the subscription function provided daily news in Ukrainian and English to subscribers' by email addresses. Until February 2022, such newsletters were sent to subscribers approximately once a month. In March 2023, there was an attempt to attack the site of the #UniteWithUkraine network action by Russian hackers [17].

Similarly, the volunteer multimedia project Ukrainer (Ukraïner), created in 2016, is a community, organization, and platform that explores Ukraine and the Ukrainian context, telling stories to Ukrainians and to the whole world, translating and broadcasting them in dozens of languages. The mission of the project is the development of an open Ukrainian society through highlighting important topics, creating additional value of objects of cultural and historical memory. Since February 24, 2022, Ukraïner has relaunched all its communication channels, which have begun to talk about the war and overcoming the disasters caused by the occupying forces. The project collects stories of evacuees, notes initiatives that provide humanitarian and military support, conducts interviews with activists and exposes Russian propaganda, and shows the resilience of Ukrainians, told in different languages on different platforms [3]. The project has 12 language versions on the website (Ukrainian, English, German, French, Spanish, Turkish, Russian, Polish, Czech, Greek, Kartvelian, Japanese), as well as a number of individual pages on social media (Facebook, Instagram, TikTok, Linkedin,

Twitter, Viber, Youtube), where additional languages are presented (for example, Portuguese, Hungarian, Korean) [28].

According to the final recommendations of the report on "EU and Ukrainian Approaches to Digital Diplomacy in the Geopolitics of Technology', the Russian invasion of Ukraine has turned digital diplomacy into an extraordinary tool. Therefore, to optimize the processes of media diplomacy, Ukraine needs to focus on developing a strategic plan for media diplomacy and building institutional capacity. The Ministry of Foreign Affairs of Ukraine should initiate a comprehensive dialogue with the Ministry of Digital Affairs to understand the situation regarding Ukraine' involvement in global technology management and partnerships established with private companies. The result of the dialogue between the Ministry of Foreign Affairs and the Ministry of Digital Affairs should be a clear division of functions between the two institutions as subjects of media diplomacy. It is recommended to build a stable and strategic institutional model similar to the EU, where the Deputy Prime Minister will manage the development of digital policy and priorities of Ukraine, while the Ministry of Foreign Affairs will promote its externalization in accordance with foreign policy priorities with the support of the Ministry of Digital Transformation.

At the level of the Ministry of Foreign Affairs, Ukraine still perceives media diplomacy only through the prism of communication tools and as part of public diplomacy. Therefore, the Ministry needs to start working on a renewed media diplomacy strategy, recognizing its importance in diplomats and diplomatic missions work as a whole to achieve foreign policy goals. The MFA's renewed approach to media diplomacy should include reflecting existing opportunities for cooperation in the digital sphere at the bilateral, regional, and multilateral levels, as well as promoting the creation of new platforms for interaction with like-minded partners similar to the EU. It is also recommended to create an official position at the Ministry of Foreign Affairs of Ukraine responsible for implementing digital diplomacy and establishing communication between the Ministry of Foreign Affairs and the Vice President, the Ministry of Digital Affairs, diplomatic missions and external partners. Ukraine can take an example from Denmark and other states, where digital ambassadors or similar positions have already been appointed to handle digital diplomacy issues and coordinate activities in this direction.

The recommendations also state that the Ministry of Foreign Affairs should conduct trainings for diplomats on the basics of digital policy, geopolitics of technology and online security skills to ensure that Ukrainian media diplomacy serves the foreign policy goals of the state. It is also noted that Ukraine needs to continue actively promoting its best practices regarding the Diia ecosystem at the global, regional, and bilateral levels. It is necessary to continue spreading the example of Ukraine' media diplomacy, oriented towards products, in other parts of the world. Ukraine needs to change the main narrative from "building the most convenient digital state" to "building the most convenient and secure digital state". It is recommended to create more expert discussions and research on digital diplomacy and the use of technology in Ukraine to achieve both domestic and foreign policy goals [21].

As noted by the multimedia platform of foreign broadcasting of Ukraine "Ukrinform", the Ministry of Digital Transformation has launched a project to train future leaders in the digital sphere.

The Ministry of Digital Affairs emphasizes that the state needs experts to implement digital reforms and introduce electronic services, as well as to eliminate bureaucracy. For this purpose, the free educational project CDTO Campus is launched, which contains 4 types of educational programs: long-term, short-term, leadership, and custom programs. The project is designed for experienced chief digital transformation officers (CDTOs), namely digitalization deputies in various state authorities who want to improve their skills, and for future specialists. As of today, as noted by the Deputy Prime Minister for Innovation,

Development of Education, Science and Technology, Minister of Digital Transformation Mykhailo Fedorov, 55 CDTOs are working at the national and regional levels. The Ministry of Digital Transformation aims to scale such projects throughout the country, for the implementation of which it is necessary to prepare at least 1,500 CDTO. Graduates will be able to join the team and become part of the digitization of the state. Registration has already started for the first program provided by the project, called "Digital transformation in public governance" [4].

As indicated on the website of this project, "CDTO Campus prepares leaders of a new generation who will become a disruptive force of digital transformations at the local, regional and national levels". The lecturers of the project are specialists with real experience in the digital transformation of the public sector, who have already implemented successful projects and are ready to share the acquired knowledge with the next generation of digital leaders - in particular, employees of various state institutions such as the Ministry of Statistics, the Ministry of Justice, the Ministry of Health of Ukraine, the Ministry of the Education and Science of Ukraine, the State Enterprise "Diia", the National University "Kyiv-Mohyla Academy", as well as the project MTD Transparency and Accountability in Public Administration and Services (TAPAS), the Ukrainian non-profit charitable non-governmental organization "Eastern Europe Foundation" and the e-Governance Academy (about 30 leaders in total). The long-term programs of the project include the above-mentioned "Digital Transformation in Public Governance" - for active state builders who want to become a new generation of digital leaders for the development of innovative processes in government bodies, as well as the "Creating a Digital Future" program designed to create opportunities for the personal development of leaders of digital transformation of Ukraine, which play a key role in shaping the digital future of the country. Among the short-term programs three programs are planned to implement: "AI House: Basics of artificial intelligence", "Cisco: Implementation of secure digital platforms" and "EU4DigitalUA: Protection of personal data" [12]. As stated in the Telegram channel of the Ministry of Digital Affairs, applications for participation can be submitted on the project's official website. It is also noted that the CDTO Campus is implemented by the Eastern Europe Foundation, funded by the Visa Foundation, the Federal Ministry of Economic Cooperation and Development of Germany (BMZ) and supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, in cooperation with the Digitality GovTech Center of Excellence, under the patronage of the Ministry of Digital Affairs [27].

In our opinion, the initiation and implementation of such a project will have a direct impact on the optimization of media diplomacy processes in Ukraine. In addition to the creation of such educational projects with the aim of forming leaders of digital transformations at all possible levels, it would be appropriate to introduce a new specialization, such as "Media Diplomacy", "Digital Diplomacy", or "Cyber Diplomacy" in the field of International Relations. This would also allow training highly qualified personnel who will contribute to the high-quality and effective implementation of media diplomacy at all levels of domestic and foreign state policy of Ukraine.

4 Conclusion

The optimization of digitalization and resistance to disinformation in Ukraine depends on the development of digital skills among citizens, including politicians and civil servants. According to the research by the European Business Association in 2021, only 53% of Ukrainians have basic digital skills, while 15% do not have them at all. Lack of digital literacy is a problem for 31% of the population. The government approved the Concept of Digital Competence Development by 2025, directed on educating 6 million Ukrainians in digital literacy. "Digital Competence Framework for Citizens of Ukraine" was developed according to European standards. In the field of media literacy, the Ministry of Culture presented the national media literacy

project called "Filter", which aims to form media literacy among the population. The Ministry of Foreign Affairs is launching the "Nations Against Disinformation" campaign, and the Ministry of Education has developed a program for the years 2022-2025 to develop critical thinking. In particular, the School for Countering Disinformation and the Center for Countering Disinformation play a key role in training and countering disinformation. Digital transformation, especially due to the success of the "Diia" project, is defined as a key element of Ukraine' sustainability, strengthening its global image and international influence. Ukraine actively cooperates with Estonia and receives support from USAID to spread the Ukrainian e-government standard. "Diia" has become a tool of diplomacy, and cooperation with the EU allows Ukraine to promote its approach to Digital ID. The development of online services by the Ministry of Foreign Affairs and innovations in the consular service simplify the service for citizens. Media diplomacy in the conditions of war contributes to process optimization and attracts the attention of the international community.

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