

The history of the information warfare concept

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Paper received 04.04.17; Revised 08.04.17; Accepted for publication 10.04.17.

Abstract. Ukraine is now at undeclared war with Russia, and the information warfare is an important component of it. Information warfare is a complex phenomenon of the 21st century, which unfortunately follows the whole history of mankind. Constantly changing and transforming into new forms the information warfare regularly makes new attacks to destabilize the world order. All the large-scale conflicts at this time involve not only the direct military actions but also information confrontation, remaining behind the scenes until now. Today, the information component of aggression has come to the fore. It is difficult to evaluate all aspects of the information warfare but we can say for sure that new information tools and means of confrontation are constantly emerging. The article provides an analysis of the development of the information warfare concept and its incremental transformations.

Keywords: information warfare, historical analysis, propaganda, hybrid warfare, World War I, World War II, the Cold War.

Introduction. It is noteworthy that the information wars followed the development of human society. They date back to ancient times. For example, in the 4th – 5th century BC the Chinese military strategist Sun-Tzu said that the best victory was the victory without a fight. In Chinese history, there are many examples of using information weapon to achieve victory. The elements of the information manipulation were used both against the external enemies and in the internal interpersonal conflicts.

The ancient rulers distinguished three basic elements of the “soft power”, which helped to overcome the enemy without a fight. The first element is a rational government of the state for the benefit of its citizens. The second element is a subtle and effective policy towards the enemy and its point of view in the conflict. The third element is a strategy of effective military operations combined with the information weapons. It must be noted that the first country which systematized the strategies of the indirect impact on politics and military affairs was China. Each of these rules was called a “stratagem”. Each stratagem is a brief statement such as: “Make Noise in the East; Attack in the West” [12, p. 45].

An analysis of papers written by foreign and national scientists who have researched the problems of informational warfare has served as **the scientific basis for our research**.

Concerning to the foreign scientists who have researched the problem of informational warfare, we will mention scientific experience of such scientist as, I.Lambert, I.Perimo, S.Harisson, M.Sanders and L.Hatchinson. These scientists have researched global problems existing in the field of informational warfare and the ways of their solution. Concerning the national scientists we would like to emphasize the experience of such scientists as G.Pochepstov, O.Kurban, E. Magda, V. Gorbulin who have researched problematic aspects of informational warfare in Ukraine.

We believe that it will serve to describe this period of the information warfare development and to point out that **the purpose** of this article is the historiographic analysis of the development of the information warfare phenomenon and the transformations of this phenomenon in the process of evolution and society technologization.

Statement of basic materials. The first stage of the formation of the concept “information warfare” ends in the 19th century. With the outbreak of the First World War, mankind had entered a new stage of information

confrontation. As the radio hadn't been used widely yet, propaganda was spread mainly through printed products like newspapers, leaflets, propaganda posters, letters of prisoners, brochures, balloons etc. The First World War was an example of the successful use of the propaganda as a weapon of mass destruction. For example, during 1918, about two thousand balloons were released; by the end of 1918, five thousand balloons were released only over Germany. A large number of leaflets was issued both inside the country and on the territory of the enemy. This involved the air squadrons, which threw leaflet shells on the territory of the enemy.

There was also another widely used method of propaganda when German prisoners wrote letters to their relatives in Germany, describing a good attitude towards them and normal living conditions. Since 1914, the United Kingdom opened its own propaganda office. At this particular period the offset printing was invented in England. That helped to make the copies of letters of a better quality. German soldiers often could not distinguish them from the originals and sent them to the relatives in the country.

The illustrated cards were used actively. They often involved methods of kindling the class hatred. According to them German Kaiser, aristocrats and military bureaucrats were responsible for the unleashing of war. As a rule, these cards were given to prisoners, so that in the future they could influence their citizens [12, p. 65].

In 1918, the English invented another effective method of propaganda – deceiving newspapers. They placed the portrait of Kaiser and the price of 10 fenings next to the heading. [12, p. 66].

It was Britain that initiated the propaganda during the First World War. The British believed that the success of propaganda was reached due to the fact that the issue of effective propaganda during the First World was put on the state level.

In 1917, in the United States there was established the Committee on Public Information under the leadership of George Krill. He pointed out the following tasks, which the committee dealt with: to call-up the citizens and focus their negative attitude on the enemy; to convince the citizens that the US had to participate in the war as a fighting partner; to establish friendly relations with the neutral countries; to establish friendly relations between the belligerent countries. Such propaganda was internally oriented.

For the propaganda purposes the US took advantage of the situation with the sunken ship "Louisitania". Twelve thousand people died. Germany received a negative image due to this historical episode. This allowed the US to enter the war against Germany.

The interwar period (1919-1939) is considered to be the most successful for the Soviet propaganda, since afterwards it could only discredit itself. The Soviet propaganda achieved a certain success due to the fact that it was directly under the control of the Central Committee of the Communist Party of the Soviet Union (b). It systematized all the separate lines of propaganda – military, Soviet and party. A significant effect was also observed due to the very nature of propaganda, as it had a pronounced emphasis on the struggle between classes. The aim of propaganda was to stir up hatred between classes for stratification of society. It was focused on the printed propaganda press. In 1919-1920, in the USSR, for example, more than 80 magazines and newspapers were published with agitation and propaganda content [8]. In the USSR much attention was also paid to propaganda work with prisoners of war. In this way, more than 130,000 foreigners joined the ranks of the Soviet army. By the way, such propaganda in the late 30's began to lose its effectiveness. And the Soviet-Japanese military conflict at Lake Khasan clearly showed this. Most of the Japanese prisoners of war affirmed that such propaganda had no effect at all. Only three prisoners said that they rendered themselves prisoners of war because of propaganda calls. Similar examples can be found in the Soviet-Finnish war.

Another phenomenon of the 30's of the twentieth century was the German propaganda. Its main ideologue was A. Hitler. As a result, the book "My Struggle" came out. It was the first significant element in building a powerful system of Nazi propaganda. In 1928 another ideological book was published. The author of the book was G. Wirth, a member of the organization "Ahnenerbe", which was the brain center of the SS. The main functions of the organization were to conduct intelligence activities, to spread the influence of the Nazi party and to explore new methods of influencing the masses. Specialists of this organization conducted the researches on the human brain and studied how one could influence human consciousness. An example of such innovations was the project "Thor". Its purpose was to develop technologies and devices for the complete control of the consciousness and the submission of human will to the communicator.

The experts from the "Ahnenerbe" accumulated the ideological, visual, audiovisual, informational and communicative elements of Nazi propaganda. For example, the marches of "Ahnenerbe" were followed by a huge number of flags and banners with Nazi slogans, an identical dress uniform for all participants, optimistic music, especially the drums that constantly accompanied Nazi marches [7].

In the years 1939-1940, the NSDAP owned 107 radio stations which constantly broadcast the radio propaganda signals. On the other hand, the plants produced radio receivers, which could receive only one radio wave. That was the way the Nazi Party spread its ideology. Germany was the first country which became interested in psychophysical effects carried out with the help of radio waves. Here we can mention the project "Concordia". The idea of

the project was to develop a wide radio broadcasting network in order to manipulate the consciousness of the citizens from other countries.

In addition to individual structures that were engaged in propaganda, there was the Ministry of Public Enlightenment and Propaganda in Germany. Its main goal was to control the media and the indoctrination of the population. An interesting fact was that A. Hitler and J. Goebbels contacted the PR specialists from the United States to form the necessary image of their party and ideology [9].

American experts developed some aspects of design for the visual elements of the Nazi propaganda. They used unusual characters, bright headlines and colors to attract attention. The 1936, Olympic Games played an important role in the image-building of strong Germany. This event helped the Nazis to form the image of a strong Aryan race among the population of the country and to restore its self-esteem after a long period of historical depression.

In 1933, the Nazis decided to introduce different phrases and formulate other sentences in order to soften public opinion. Thus, for example, the word "arrest" was replaced by "protective custody", they did not say "killed" but "took extraordinary measures to calm down", "invasion" was changed into "police operation", etc. [7].

An important element was the propaganda slogans of the Nazis like: "Adolf Hitler is a victory"; "One people, one Reich, one Fuhrer"; "Wake up, Germany!"; "The onslaught on the East"; "Fight for your country"; "Join our fight"; "Everything for Germany"; "God is with us". As we can see, powerful and aggressive slogans were used during the entire period of the Nazi Party government.

Since the very beginning of its activity the Nazi propaganda planted the hate among the population towards other nationalities and races. Special attention was paid to Jews and Gypsies. They created an image of a Jew as a lowborn creature having no moral values. These qualities were emphasized at the first opportunity. The crown of the Nazi propaganda was A. Hitler. He was presented for the population as a "father of the nation". Slogans such as "Hitler is our last hope" and "Hitler is the Savior" were widely spread.

As you can see in 1930-1940, Germany took a qualitative step in the conduct of information warfare. The Second World War was a completely different stage in the development of information wars and psychological operations. With the advent of radio and cinema, propaganda rose to a higher level [15]. During this period a new concept of "Psychological War" was developed. It partially replaced propaganda, and partially supplemented it.

That period was marked by the most active phase of the Hitler information campaign. In August 29, 1939, Germany carried out an information provocation against Poland. Due to the leaflets distribution, Germany managed to recruit one thousand of volunteers in a few days [16].

In 1940, the "black" transmitters were used throughout France. That was the invention of J. Goebbels. The point was that the Germans broadcast the radio programs as French, but with their ideological context. The year 1942 became the most successful for the German propaganda. This can be explained by a military and strategic advantage as well as by an effective information campaign

conducted by the Nazis throughout the war.

The German propaganda placed a high value on the General A. Vlasov and used the slogan: "The Russians come over to the Russians". The prisoners of war composed leaflets and voiced the texts written by A. Vlasov. An example of such information disruption was: "Address by the Russian Committee to the commanders and the soldiers of the Red Army, to all Russians and other peoples of the Soviet Union" [3]. The use of the direct military mechanisms on the sidelines of this action was an example of a hybrid war. In 1942, the heavy tanks "Tiger" and SPG "Panther" were used during tactical battles. They intimidated the enemy and appealed to its sense of self-preservation.

Germany paid great attention to the information warfare in the territory of Ukraine. Scientists E. Skulish, Y. Zharkov and L. Kompantseva believed that the information warfare of Germany in the territory of Ukraine could be divided into three stages. At the first stage, the German propaganda tried to create an image of the liberators. At the second stage, Germany switched to the terror tactics through failures on the military front. At the third stage, the emphasis was again changed. They stressed that the Stalin regime which would replace Germany was even more bloodthirsty. In general, German propaganda of the 30-40's of the twenties century can be considered as one of the most successful examples of the manipulation of the people's consciousness. And yet its effectiveness depended on the successes at the front, which were frustrated over time.

As for the Soviet propaganda during the Second World War, it became successful only after gaining a strategic advantage over the enemy in 1943. It had a significant effect on the Ukrainians due to the fact that the standard of living dramatically decreased and the manipulations were aimed at making people believe in a brighter future and the victory over Fascism. The main points were: insufficient level of food supply, famine, rectification of an injustice, patriotic slogans [8].

Most specialists in information wars point out a large number of shortcomings in the Soviet propaganda. One of such examples was an attempt to re-educate a German soldier by inculcating Soviet values on him instead of appealing to his emotions. This approach only irritated the latter. As a rule, the Soviet propaganda did not try to influence people on the cognitive level, but only appealed to the emotional state of a person. And that was done in a rather blunt manner [15].

The year 1942 can be considered as the beginning of the active phase of the psychological war conducted by the United States during the Second World War. From the very beginning the information confrontation of America wasn't successful. It was mainly due to the low level of the relevant specialists training, the cynicism of the US military forces about the information campaigns and the insufficient level of methodological practices in this area. Most of the information campaigns were conducted directly at the front line. The largest headquarter was formed in 1942 during the fighting in North Africa and numbered 5,000 people. The American government developed the following concept of the psychological warfare: "The distribution of the propaganda materials is intended to demoralize the enemy and destroy its will to

resist, as well as to enhance the morale of the co-belligerents" [14]. In our opinion, this definition cannot cover the whole essence of the concept of "the psychological warfare". It was based on the challenges of that period and the pressing needs which the command faced in that particular situation.

In 1945 the USA approved the strategic plan for a psychological war against Japan. It became possible due to the defeat of Germany and the destructive domestic situation in Japan. It is noteworthy that during the Second World War the Americans had the best consolidating propaganda, which called on the co-belligerents to unite against Hitler and the Axis Powers. [10]

English propaganda had a heightened nature. All activities on the psychological warfare were approved at the highest state level. In 1937, there was established a department on propaganda and psychological operations. In addition, the Ministry of Information and a number of secret departments were engaged in the propaganda activities. In 1940, they were merged into a single department on the special operations [12, p. 99].

It is interesting that England started its propaganda work in response to aggression of Germany in twelve hours after the declaration of war. This shows the efficiency and readiness of the relevant authorities for such situations in those days. For the initial few days of the war 6 million leaflets were thrown on the territory of Germany. The department on the special operations spread propaganda in 29 languages. A total number of postcards distributed in Europe reached 6,5 billion [12, p. 101].

Japan also actively worked on the information influence. It was directed both at its own population and the territories it occupied. A number of measures were taken aimed at forming a cult of "kamikaze" within the country. Realizing that Japan fell short of military power, the Japanese tried to intimidate the enemy with the suicide tactics.

The Japanese paid attention mostly to consolidating propaganda, which they called a "political war". According to the Japanese, an effective political war shall achieve two goals: the government of the country agrees to seizure and the production yields a profit. The nuclear bombing of Hiroshima and Nagasaki can be viewed as a psychological attack by the Americans. These events had a strategic impact on the entire post-war political situation in the world. In fact, this can be considered as an example of a hybrid war.

During the Second World War the countries had different strategies of carrying out psychological operations. In our opinion, the most successful one in relation to methodology was the Nazi propaganda. We consider the English propaganda to be the most effective as this country is the winner, and it was perfectly prepared for the information warfare. Those were the formative years for the United States and Japan in the world of information confrontation. But in 1946-1946, the Americans took the leading positions.

Since the beginning of the Cold War the information confrontation threw back the direct military actions. Political, economic and information resources became the main leverage. The 45 year long information competition between the United States and the Soviet Union resulted

in the loss of the Soviet Union in this fight. During that period the term “information war” became a comprehensive systemic phenomenon. It included propaganda, psychological operations, agitation and diplomatic efforts.

During the Cold War the United States paid considerable attention to the problems of prompt response to information threats by the USSR. Throughout the conflict, America continuously developed new techniques of information confrontation. In 1948, the first state public affairs department under the Ministry of Defense was established in the United States. In 1949, a resolution on “Conducting psychological operations” was adopted [12, p. 104]. According to the document the propaganda was the main component of the information struggle. It was divided into white, gray and black, military and political, depending on the purpose.

From 1950 to 1953, during the war in Korea, the Americans used a wide range of new techniques of conducting psychological warfare. Initially the real intentions were covered by a peacekeeping mission in response to the aggression of North Korea. In addition, the idea of the US as a defender of order, freedom and human rights was widely propagated. The Psychological Warfare Department was responsible for the development of the information confrontation strategy. In 1956, it was renamed into the Special Warfare Department. This step was taken due to the spreading of the range of techniques used for the information confrontation since the beginning of the Cold War. The variety of techniques began to involve the sabotage-terrorist and espionage activities. That was a bright example of a hybrid war.

The peak of the various information technologies use coincided with the period of the Vietnam War. In the course of the conflict, separate units engaged in the conduct of the psychological operations were created. The units included the company for the printed propaganda, the radiobroadcast company and the division responsible for work with the population in the occupied territories. The total number of people was about 1000 persons [12, p. 107].

The propaganda of the Vietnam War was characterized by being mostly black and gray. A special expert group was sent to Vietnam to conduct the propaganda war. The radio was widely used during that period. Broadcasting was carried out from the operational headquarters which were based on the large aircraft. In addition, the aircraft were equipped with loudspeakers. The US actively used the tactics of the postcards bomb delivery.

After the war in Vietnam, it was taken a new look at the psychological warfare techniques. It was determined that such actions could be effective only when used systematically, methodically and consistently. The US began to pay great attention to preventive information operations. In 1979, a new statute was created. It determined the basic principles for the psychological operations. Its tasks included the following: comprehensive assistance and information support of the direct military operations; the formation of a positive image of the US and its military forces; counter-propaganda and disinformation of the enemy [13].

The information support of the war in the Persian Gulf beginning from the invasion of Iraqi troops into Kuwait and ending with the US military operation was important

for the historiographic analysis of the development of the information warfare phenomenon. By the way, most experts consider the war in the Persian Gulf to be the first information war. A few months before the aggression, specialists were sent to the embassies and diplomatic missions of Iraq and its neighboring countries. They collected information on the language, culture, and the military industry for the purpose of the detailed studying the ways of influence on the Iraqi population. The psychological warfare itself consisted of three consecutive stages. During the first stage the specialists on psychological operations tried to demonstrate the determination of the United States and the united position of the coalition countries regarding Kuwait. The second stage involved the persuasion of the Iraqi population to stop military resistance. The third stage was characterized by the information support of the military operations in the region. The psychological warfare was conducted in two directions. The first was aimed at the formation of a favorable foreign policy environment. The second was aimed at spreading destructive influence on the Iraqi army [13].

The war in Iraq was the first example of the active use of video propaganda through the distribution of videotapes. They were initially distributed in the neighboring countries and subsequently reached the territory of Iraq and Kuwait. The videos recorded on the tapes highlighted the power of the US military and criticized the regime of Saddam Hussein. In the course of this conflict, the US managed to form a suitable agenda due to the use of new methods to convey information.

Since 1991, the information power was exercised through the tactical communication networks of the US military. That was done in order to hide the real intentions of the military conflict. The information activities of this period can be considered as an example of the first well-organized system information operation.

The psychological operations conducted by the Soviet Union on the territory of Afghanistan are interesting in terms of the analysis of the information warfare development. At the beginning of the war, there were formed special units, which were engaged in agitation and propaganda activities on the territory of the enemy. There were three stages. The first stage included preventive actions on explaining the causes of the conflict (until summer 1981). The second stage was aimed at stabilizing the information situation (by the end of 1986). The main task during the third stage was to propagate the idea of national reconciliation and the need for withdrawal of the military contingent from the territory of Afghanistan (1987 – 1989) [12, p. 118]. The USSR didn't have a great variety of the propaganda techniques, but the war in Afghanistan became the first example of their military information tactic.

The conflicts of the late 90's established a principled framework for the formation of a modern stage in the information warfare development. In the early 90's the Americans began to conduct system studies of information wars. The aim of the study was to predict future threats in 2020.

One of the leading experts in the field of information warfare of that time was the Professor R. Shafransky from the US Air University. He claimed that future confrontations would be translated into the mental and value struggle

gle. He said the following: "Knowing the values of the enemy and using its presentation system, we can relate to each other's goals, talk with the enemy's mind in verbal and non-verbal languages" [6]. In his other study, he noted the following: "The goal system of the information warfare can include every element of the enemy's epistemology" [5]. Another scientist J. Stein also claimed that information warfare works with the projection of ideas and epistemology [4]. As for the very concept of the information warfare, he stated the following: "The target of the information warfare is the human mind, especially one that takes key decisions on war and peace, and a military perspective; the mind that makes the key decisions about when, how and whether it is worth to use the potential and opportunities existing in their strategic structures" [4]. As we could see, scientists began to study the information warfare phenomenon on a qualitatively new level. It was not a question of systemic influence on a greater number of the population anymore but of the cognitive influence on the remote structures of their subconscious.

In 1996, the Australian military researcher D. Connery considered the phenomenon of information warfare as a war of knowledge. In addition to the physical dimension, he also distinguished information and cognitive dimensions. The scientist believed that that approach would increase the efficiency of the direct military operations, since it was irregular and affected the civil population bypassing the defensive elements of the enemy [2]. That year the French researcher P. Bomar expressed his opinion that the war would move from the paradigm of the direct confrontations to the war of knowledge. He stated the following: "In the paradigm of the war of knowledge, the strategic advantage lies not in facts and numbers, but on mutually complementary minds of those who interpret them. A nationally widespread opportunity for the interpretation is more powerful than the electronic information

super ways" [1]. As we see most scientists predict the change from the direct aggression to intellectual war for the mind.

The next stage in the development of science on information wars can be considered the beginning of the 2000's. During this period the term "epistemological war" arose. In this regard G. Pocheptsov says the following: "If you want you may call this the mind games, but such analyses helped the British to manipulate and control the Nazi intelligence efforts in Britain and other union territories during the World War II" [15]. This thesis also means an additional aspect of the information confrontation – the intelligence activity. Another aspect of the information warfare, which began to be actively used, is a cyber war. Over time, more and more separate aspects began to unite into one big core of the information warfare techniques. Thus, the notion of a "hybrid war" arose. It combined the direct military actions and a wide range of the indirect information and communication tools of influence.

Conclusions. Information warfare always played an important role in the world development. In fact, from the very beginning of the civilization this phenomenon took place in all conflicts. Information warfare evolved along with the development of mankind. The key changes began in the early 20th century, when the active development of the technology gave rise to mass communication and distribution of information and propaganda. Summing up, we should say that the researches in the field of information wars are not merely finished but also gain new momentum. With the advent of a new phenomenon of hybrid war, much has changed in the field of world interstate and global security. We believe that now Ukraine has a good opportunity to develop this direction as well, since it is possible to win the hybrid war only by enhancing effective information security.

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