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HUMAN SECURITY IN THE INFORMATION AGE

ABSTRACT

Since the digital revolution, started in the middle of twentieth century, fast proliferation of information technologies can be observed. In an era where information rules the world we face new challenges. In this paper an attempt to analyse human security in the era of information has been made. The following paragraphs relate to different spheres of human life from military activity to media. Great emphasis was put on connection between the security of the individual and the traditional construct of national security.

Key words:

information era, human security, Third Wave War

INTRODUCTION

*"Information is the oxygen of the modern age.
It seeps through the walls topped by barbed wire,
it wafts across the electrified borders".*

Ronald Reagan

Information is a symbol of our times. We live in the world, where information and communication have become the dominant forces that influence human actions, interactions, activities and institutions. How do we cope with these new situations? Are we prepared for this new society and what's more important, are we aware of these changes? Countries and international organizations (in all areas of public life - military, economic, political etc.) need to find new resolutions for new problems we will face to and build solid system of security¹.

A. Fisher and C. Clark are considered to be the creators of the theory of the three sectors- one of the earliest models of economic development. The theory is based on reallocation of resources between sectors such as agriculture, manufac-

¹ The Information Age: An Anthology on Its Impact and Consequences, 1997.

turing, services and fourth, recently added sector- knowledge and economy society. After the information revolution (understood as current economic, social and technological trends beyond the Industrial Revolution) the importance of information in the development of the world economy is recognized. This leads to the idea of distinguishing the fourth stage - the knowledge-based society. Highly educated workers and access to information play the key role in such society, while work on industrial production will be automated. The transition of countries through the stages of development with dominant sector will be determined by the growth rate of labor productivity in the various sectors. The last stage is characterized by a high demand for modern goods and services, the high growth rate of technical progress, the dominance of information and communication technologies in industry and services ².

Most of developed and developing countries are in the sector of services. General Agreement on Trade in Services - a treaty of the World Trade Organization (WTO) that creates rules and principles of international trade in services has classified service activities extracting 160 sectors in 12 standard groups. Some of them include services which are typical for information society like education or business and professional services. However, there are countries like USA, Great Britain, Germany or Japan that are above this level - we call them information societies. This requires new law regulations. There are of course some old outcome (including copyright) but they must keep pace with the rapid technological development.

The irony of our total immersion in information and entering the Information Age is that for the most part we do not really have a clear understanding of what exactly information is. The word information is derived from Latin *informare* which means "give form to". Nowadays it is commonly used to refer to various points on the information spectrum from data to knowledge and is thought as disjointed little bundles of "facts". However there is no unanimity in defining the word "information" in professional literature. In the Oxford definition of the word it is connected both to knowledge and communication. Norbert Wiener - an American mathematician and originator of cybernetics defined an information as "name of content as derived from the external world as we adjust to it and how we adapt our senses to it"³. Polish professor - Henryk Greniewski gives a different definition: "by information we mean any signal, message, permit, order and prohibition"⁴.

In my essay I will try to analyze the correlation between information and human security and to present how modern society face the era of information and knowledge in different areas.

² A. Zielińska-Głębocka "Współczesna gospodarka światowa", 2012.

³ N. Wiener "Cybernetics and Society", 1954.

⁴ H. Greniewski "Elementy cybernetyki sposobem matematycznym wyłożone", 1959.

ARMY

"Know your enemy and know yourself; in a hundred battles you will never be in peril. When you are ignorant of the enemy, but know yourself, your chances of winning or losing are equal. If ignorant both of you and enemy and of yourself, you are certain in every battle to be in peril".
Sun Tzu, "The Art of War"

A hierarchical structure, superior-subordinate relationship and orders are army's basic foundations. The army, due to its tasks is rather resistant to any changes. In other areas such as armament and commanding systems the army followed the industrial revolution (which made it possible to develop new weapons) and now are trying to keep up with the information revolution. After industrial revolution preponderance of soldiers on battlefields ceased to matter - more important was quality of weapons and its modernity or firepower. Today's information revolution causes the same phenomenon. The most valuable thing, a commander has is information. It is provided by Decision Support System, computer-based information systems that help entering, storing, processing and visualization of data. It becomes obvious that information systems are so essential to both - the military and civilian society that they may be main targets in war. It is the role of intelligence cycle security to protect the information.

Military organizations have traditionally provided information to forces in three ways: commands, intelligence, and doctrine. Commands serve to define the specific task at hand. Intelligence provides information about the environment in which the task is to be carried out. Doctrine provides the "rules of the game" or standard operating procedures⁵. What differs armies from corporations is extremely high cost of mistake. Consequently the task of the modern army will be to gain information superiority over enemy. And this is where the military intelligence and counterintelligence play their role. The main task of intelligence agency (carried out on three levels - strategic, operational and tactical) is to respond to the needs of the commander (based on the tactical situation and plans for the operation). The intelligence cycle is an investigation process which allows to gather specific information, understand the possibilities of that information, and the limitations of the intelligence process. Information of a military nature, mainly recognition in relation to other countries is collected mainly with the help of advanced technology. In addition to intelligence there is counterintelligence, impeding the efforts of foreign intelligence services in their own country. There is also the difference between civilian intelligence services and military intelligence unit. We have

⁵ "The Unintended Consequences of Information Age Technologies", 1996.

to remember that the intelligence cycle is the continuous process where priorities are set each time anew.

Specifics of the functioning of today's military structures are non-article 5 crisis response operations fully described in NATO's doctrine AJP 3.4(A) (and UN's military operations other than war). As the security environment continues to change, it is and will continue to be complex and global and subject to unforeseeable events. International security developments have an increasing impact on the lives of the citizens of Allied and other countries.⁶ The new strategy of allied countries is to preserve peace and prevent wars on the base of effective diplomacy, successful management of crises and integral information policy influencing security. This job cannot be done without international exercises and trainings between land and air forces and the navy, as well as the exchange of information at government level.

MEDIA

“Many people think journalist security involves the use of encrypted files and counter-surveillance techniques — and those practices do have their place, but security is really a way of thinking, a way of approaching your work. And fostering professional solidarity is crucial to that approach.”

Frank Smyth, the Committee to Protect Journalists

There is a reason why free press (mass media, journalism) is called the fourth estate in democratic countries. With the access to the Internet, the ability of the international media to provide foreign perspectives and outlooks on a real-time basis has increased. All the major media in the world have created a sense of global connectivity, if not community, that has never before existed. As a result, we cannot argue that the role that media play in the modern world is far greater than ever before. Journalists fight for the truth and the freedom of speech wherever it is threatened.

Committee to Protect Journalists keep statistic on killed, imprisoned, exiled and missing journalists who fought for free press. 1040 journalists have been killed since 1992 (70 in 2013) mostly because of politics and fighting for human rights. In last two decades Iraq was the deadliest country with 161 reporters killed. We associate publicist imprisonment mostly with censorship and with the People's Republic of China, where human rights are violated. But in 2013 China reached the 3rd place (with 32 prisoners) after Turkey (40 journalists imprisoned) and Iran (35 people). The CPJ perform a campaign against the criminalization of speech: "Critics are not criminals". They stand for freedom of expression as a fundamental and inalienable right of all individuals⁷.

⁶ NATO's doctrine AJP- 3.4(A), 2013.

⁷ <http://www.cpj.org/>, 13.01.2014.

But doesn't the freedom of speech stand in contrary to security in some cases? In 2006 an informational bomb exploded. An international, online organization - WikiLeaks created a web-site where secret information was revealed. The goal of Sunshine Press - the owner of WikiLeaks was to publish classified media and documents from anonymous sources. Wiki- Leaks with his founder - Julian Assange describes itself as "an uncensorable system of untraceable mass document leaking". Former United States Secretary of Defense Robert Gates commented: "Is this embarrassing? Yes. Is it awkward? Yes. Consequences for U.S. foreign policy? I think fairly modest"⁸. On the contrary several U.S. government officials (including Hillary Clinton) have criticized WikiLeaks for exposing classified information and claimed that the leaks harm national security and compromise international diplomacy⁹.

But the most significant leak in US history (according to Pentagon Papers) was Snowden's release of classified documents in June 2013. This former worker of CIA and National Security Agency (NSA) revealed operational details of a global surveillance by "Five Eyes" with cooperation with commercial and international partners. According to Snowden, his "sole motivation" was "to inform the public as to that which is done in their name and that which is done against them". It initiated the discussion over the balance between national security and information privacy. Snowden was nominated to Sakharov Prize for Freedom of Thought for his action.

There is also another aspect of media. The Internet gives real-time, limitless access to world's resources on every subject. Geoff Mulgan wrote: "The networks carry an unimaginable volume of messages, conversations, images, and commands". But sometimes we don't know how to use it smartly. Polish sports journalist Krzysztof Stanowski accused media of being an idiot. He declares that he knows which celebrity gets divorced but he doesn't know who is the prime minister of Israel. He draws attention to a great problem - selecting information by the media, as well as his own laziness and mistakes when selecting information made him look like an idiot. Overinformed society with more and more secondary illiterates leads to stupefying of society. We get more meaningless information which brings us neither knowledge nor wisdom. The threat of the Internet also stems from its decentralized nature (no one owns or controls the Internet). We need to counter this phenomenon if we want to build the aware information society.

⁸ <http://content.time.com/time/magazine/article/0,9171,2034488,00.html>, 2.12.2010.

⁹ <http://www.foxnews.com/politics/2010/12/16/congress-mulls-stop-wikileaks-tracks/>, 16.12.2010.

POLITICS

"Politicians often claim secrecy is necessary for good governance or national security".

Heather Brooke

Governments shape national and world's security through their policies and participation in numerous international organizations such as European Union or WTO. Entering the information age puts politicians against new problems that have never existed before but they also have new tools. Johanna Neuman in her "The Media's Impact on International Affairs, Then and Now" writes: "throughout history, whenever the political world has intersected with a new media technology, the resulting clash has provoked a test of leadership before the lessons learned were absorbed into the mainstream of politics". But in the end they have always been absorbed. New technologies support building solid, educated and democratic society. They allow electronic voting, TV debates or online access to national agencies but they also make governmental databases more vulnerable to attacks. In recent years, a number of hacker attacks have been conducted on government websites in many countries.

As an example I'll remind blocking Georgian websites by Russia during South Ossetia War in 2008. The Internet and media are also an effective political tool during the election. Not once and not twice discreditable information about candidates from opposing parties flowed just before the voting.

Quite another thing is the ability of people in power to manipulate the public. Aldous Huxley, an English writer in his most famous novel *Brave New World* (written in 1931) gives an idea of what the future society will look like. The novel anticipates developments in reproductive technology, sleep-learning, psychological manipulation, and operant conditioning that combine to profoundly change the society. Huxley predicted that people will be controlled by inflicting pleasure and ruined by what we love. He remarked that the civil libertarians and rationalists who are ever on the alert to oppose tyranny "failed to take into account man's almost infinite appetite for distractions".¹⁰ He accurately foretold that society will become pre-occupied with some equivalent of the feelings. And though (thankfully) the reality described in the book is not fulfilled yet, we are increasingly dealing with the apathy of society towards the problem. By globalization, people feel less connected and responsible for their small communities.

¹⁰ Aldous Huxley, "Brave New World Revisited", 1958

ECONOMY

*"True individual freedom cannot exist without economic security and independence.
People who are hungry and out of a job are the stuff
of which dictatorships are made".*

Franklin D. Roosevelt

The real power transfers from the political life to the companies and organizations that dispose the information. They may be international financial and industrial corporations possessing financial capital, human and technological resources. Although the old bipolar division of the world (like the rich north and the poor south) has disappeared, there are still growing disproportions and asymmetries between countries and regions. Due to the widespread globalization, which did not pass the economic sphere, there is a need for coordination on a global scale. It resulted in the formation of numerous organizations (like World Trade Organization), groups (like G-20) and the reinforcement of the role of the World Bank and UN agencies.

A very good example of the importance of information on a stock exchange was presented in Jerry Archer's book "Kane and Abel"- where one of the characters becomes a millionaire thanks to (not quite legally) acquired information. One of the most important rules is that information delivered to the public must be true, accurate and complete because investors do make decisions to buy or sell securities based on it.

New technologies gave range of possibilities to new forms of trade, data services and in capital services. But to ensure safety of finances banks and security firms had to create electronic funds transfer systems that have become a part of international financial economy system. With control policy models, formal proofs of crypto-graphic protocols, approved firewalls, better ways of detecting intrusions and malicious codes and better tools for system evaluation and assurance, the security can be provided¹¹. But we have to have on minds that neither international companies nor driving forces have interest in protecting users from privacy violations and fraud. They are more likely to use them to their advantage.

¹¹ Ross Anderson "Why Information Security is Hard- An Economic Perspective", 2001.

SCIENCE

"Without education, we are weaker economically. Without economic power, we are weaker in terms of national security. No great military power has ever remained so without great economic power".

Jon Meacham

In parallel to the armament race between countries there is also scientific race taking place. In 2003, the number of European publications exceeded the number of U.S. publications. As an example I'll mention a space race - mid-to-late 20th century competition between the Soviet Union and the United States for supremacy in space exploration. But their goal is noble - to improve the quality of human life. Today's scientists are working on a cure for cancer and on space technologies. We must remember that no scientists started from scratch. The researches use the scientific achievements of predecessors. With today's technology, research teams around the world have almost unlimited access to the entire accumulated knowledge.

Another phenomenon is the high specialization of today's world which has both advantages and disadvantages. It results in the fact that although we have many specialists in different areas sometimes we lose the overall picture of the situation. It's hard to find a versatile person in today's society. Through education we are supposed to be equipped with the necessary knowledge. But what we will do in the future depends on our interest and individual predisposition. Every year an effort to limit the mandatory material for students is made. As a consequence we have the rising generation of highly educated idiots. People who do not have general knowledge. In several years these people will exercise power and take binding decisions. If we want a safe world with conscious people in power we have to start acting today since "education is the most powerful weapon which you can use to change the world" as Nelson Mandela said.

CONCLUSION

We participate in the war. According to Toffler's book "War and Anti-War" it's the war of Third Wave where knowledge rivals weapon. In his works he proves that nations have been moving away from a Second Wave Society into what he would call a Third Wave Society, one based on actionable knowledge as a primary resource.

Tim Weiner in his "Enemies - the history of FBI" claims that national security and civil liberties are antagonistic terms. To maintain the freedom of the Internet, and freedom of speech we risk some danger. We cannot trust that our data and secrets will be completely safe in an era where technology rules the world because

the devices are unreliable. But so are people. The point is to find the golden mean as described by Aristotele. What do we value most? Is it our freedom or safety? Tony Robbin, an American life coach satirically says that "We aren't in an information age, we are in an entertainment age". And this is the fact that in a broader perspective we lose focus on what is most important.

We are drowning in information while starving for wisdom. We are overwhelmed by data which give us neither knowledge nor wisdom. To ensure the safety in the world in which we live we must remain aware and never stop looking for solutions to piling up problems we are faced with.

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BEZPIECZEŃSTWO LUDZKIE W ERZE INFORMACJI

STRESZCZENIE

Od rewolucji cyfrowej, która rozpoczęła się w połowie XX wieku, można zaobserwować proliferację technologii informacyjnych. W czasach, gdy informacja rządzi światem musimy stawić czoła nowym wyzwaniom. W niniejszej pracy została podjęta próba analizy bezpieczeństwa ludzkiego w dobie informacji. Powyższe akapity odnoszą się do różnych sfer życia człowieka, od działalności wojskowej, do mediów. Duży nacisk położono na związek pomiędzy bezpieczeństwem jednostki a tradycyjną konstrukcją bezpieczeństwa narodowego.