

# CYBERCONFLICTS: AN EFFECT OF GLOBALIZATION ON CONFLICT ECOSYSTEM

Hüseyin ORUÇ\*

## *Abstract*

In this study we aim to understand how does globalization changed / expanded the international conflict ecosystem by introducing a newcomer: Cyber-conflicts. For the purpose of such an understanding first of all in the introduction part we revisit and integrate a number of theories and concepts such as conflict, cyberspace, imperialism, globalization theories and transnationality concept in order to have a theoretical framework about cyber-conflicts. Then we focus on the differences and relations between the conventional / kinetic conflicts and cyber-conflicts. Although this study is based on qualitative analysis of what is called cyber-conflicts, we also include some quantitative data in order to clarify the current changes in international conflict ecosystem. In the conclusion part we reach a new conceptualization about cyber-conflicts as globalization of war and criticise the lack of peace mechanisms.

**Keywords:** Conflict Ecosystem, Cyber-conflicts, Kinetic Conflicts, Globalization of War

## *Özet*

Bu çalışmanın amacı, küreselleşme sürecinin yeni bir olgu olan siber-çatışmaları ortaya çıkarmak yoluyla uluslararası çatışma ekosistemini nasıl değiştirdiğini / genişlettiğini anlamaya çalışmaktır. Bu amaçla, çalışmanın giriş bölümünde, siber-çatışmalar hakkında kuramsal bir çerçeve oluşturmak için çatışma, siber-uzay, emperyalizm, küreselleşme kuramları ve ulus-aşırılık bir dizi kavram ve kuram yeniden ele alınmakta ve birbirleriyle ilişkilendirilmektedir. Sonraki bölümlerde ise geleneksel / kinetik çatışmalar ile siber-çatışmalar arasındaki farklılık ve ilişkilere odaklanılmaktadır. Her ne kadar bu çalışma, siber-çatışmalar hakkında nitel bir analiz olarak tasarlanmış olsa da uluslararası çatışma ekosistemindeki güncel değişimleri açıklığa kavuşturmak amacıyla bazı nicel verilere de yer verilmiştir. Sonuç bölümünde ise siber-çatışmalar hakkında, savaşın küreselleşmesi gibi yeni bir kavramsallaştırmaya ulaşılmakta ve barış mekanizmalarının eksikliği eleştiri konusu kılınmaktadır.

**Anahtar kelimeler:** Küreselleşme, Çatışma Ekosistemi, Siber Çatışmalar, Kinetik Çatışmalar, Savaşın Küreselleşmesi

---

\* MA Student, Program of Peace and Conflict Studies, Social Sciences Universty of Ankara, can be accessed via onur\_tercume@hotmail.com

## **INTRODUCTION**

In peace and conflict studies discipline, even the basic concepts are still elusive. The debates around the basic concepts of the discipline can be attributed to not only the relatively “new” characteristics of the discipline but also can be considered as an expression of different points of view about the economic and political aspects of the international system. Therefore the definitions of basic concepts reflect the ideological biases and orientations. As Jackson points out, “there is ..a real need to encourage an openly “critical turn” in the field” (Jackson, 2015, p. 19). The mainstream in peace and conflict studies, due to the dominance of the positivist social scientific paradigm and narrowly determined basis of positivist ontology and epistemology (Jackson, 2015, p. 21); shows a weak appearance in revealing the broader social relations, structures, history, culture and contexts that is to say the international economy-political system behind the conflict issues.

Conflicts are tried to be explained from a behaviourist perspective reducing the issues to the behaviours of the parties. Therefore, it will not be an exaggeration to say that the mainstream peace studies separate and isolate the individual conflict cases from its root causes which rise on the basis of the domination systems. This separation and isolation approach is also valid in theory; the mainstream peace and conflict theories do not reflect the debates in broader social theories. Behind a claim of impartiality, mainstream peace studies are oriented as a “problem-solving”/stability tool for the existing system on national and international levels. On the basis of the statements above and critical theory’s acknowledgement of subjectivity in social science, this study will consider the definitions from a critical, historical and economy-political perspective. This subjectivity can be expressed in Galtung’s words: “As in all other types of social science, the goal should not be an ‘objective’ social science freed from all such value premises, but a more honest social science where the value premises are made explicit” (Galtung, 1971, p. 83)

### **Conflict and Conflict Ecosystem**

The founder of the discipline Galtung defines conflict as a relation where the “actors (are) in pursuit of incompatible goals” (Galtung, 1973, p. 23). This definition which at the first sight seems as a behaviourist approach, with his well-known conflict triangle consisting of

A(Attitudes) + B(Behaviours) + C (Contradiction) transforms into a multi-dimensional approach (Galtung, 2007, p. 22). Contradiction is about inequality structures and structural violence is the root of direct violence. Galtung's one of the basic but undervalued contribution to the discipline is his Imperialism theory which considers the domination relations in international arena as a structural violence between the center and periphery (Galtung, 1971).

However one can observe that Galtung's relatively critical approach could not be deepened by the newcomers of the discipline. His emphasis on the structure shifted towards the behaviours:

*The starting point for this paper is the traditional definitions of conflicts (presented below), according to which a conflict is the result of opposing interests involving scarce resources, goal divergence and frustration. The paper then addresses more recent perceptions of the conflict concept. We suggest that conflicts should not be defined simply in terms of violence (behavior) or hostility (attitudes), but also include incompatibility or "differences in issue position" (Position differenzen) Such a definition is designed to include conflicts outside the traditional military and is based on **behavioral dimensions**. (Swanström & Weissmann, 2005, p. 7).*

A different variant of this extreme-emphasis on behaviours is the "perceptions" approach: "A relationship between two or more interdependent parties in which at least one of the parties perceives the relationship to be negative or detects and pursues opposing interests and needs. Both parties are convinced that they are in the right." (Leonhardt, 2001, s. 7)

Not be misunderstood, it should be noted that the effect of perceptions in formation of a conflict is undeniable. However the shortcoming of this perceptions approach is the overestimation of the psychological processes in perceptions. Since the perceptions occur on the basis of an historical, social and political processes determined by power and domination relations, it could be noted that the perception itself is a social process.

Some of the researchers define conflict on the basis of economic reason by transferring "scarce resources" term from economics into peace and conflict studies: "a social situation in which a minimum of two actors (parties) strive to acquire at the same moment in time an available set of scarce resources." (Wallensteen, 2007, p. 15). The pre-acceptance of scarcity of resources in itself is a variant of economic determinism and "homo-economicus" concept.

Also there is confusion about the appearance or formation of conflict; especially about whether violence is an integral part of a conflict or not. Due to this confusion, in some definitions the distinction between contradiction and conflict disappears:

*The word conflict has a confusing range of meanings. It sometimes is used to refer to war or other violent social relationships; but sometimes, it refers to a difference in interests between parties that is unrecognized by them. I use the word here to refer to a social relationship in which two or more persons or groups manifest the belief that they have incompatible objectives. That definition indicates that a conflict may be waged in a variety of ways, varying in coerciveness and many other dimensions. (Kriesberg, 2012, p. 150)*

At this point, Galtung's powerful approach to violence, as structural and direct/physical violence will be helpful to solve the confusion. Direct/physical violence is not a must for a conflict, but structural violence is an integral part of any conflict. Otherwise one cannot make a distinction between conflict and contradiction.

Also there is another debate about the role of the conflict in social change. Marx had defined the class struggle as the *engine of the history*. Marx's point of view is shared by some of the mainstream opinions from a different perspective. This perspective can be summarised as: conflict is something that can be used to restore the social relations ultimately in order to reconstruct the existing system: "Conflict is an essential ingredient of social change. What is important is that conflicts should be solved in a peaceful and constructive manner. - In these Guidelines we use a narrower definition of the term "conflict" referring to a situation where there is a potential for violence to occur between groups or where violence has already occurred. These are the conflicts with which development cooperation is increasingly preoccupied" (Leonhardt, 2001, s. 7)

Another specific issue to be addressed is the dynamic and relational nature of the conflict:

*A conflict is **not a static situation, but a dynamic one** – the intensity level changes over a conflicts' life cycle. An understanding of the **conflict cycle** is essential for an understanding of how, where and when to apply different strategies and measures of conflict prevention and management. Over time, numerous suggestions and models of*

*conflict patterns have been put forward. Among these models and suggestions, a number of patterns stand out. Conflicts tend to be described as **cyclical** in regard to their intensity levels, i.e. escalating from (relative) stability and peace into crisis and war, thereafter deescalating into relative peace. Most scholars also agree that these cycles are reoccurring. This proposition is strongly supported by empirical research on conflict patterns (Swanström & Weissmann, 2005, pp. 9-10).*

However conflict is dynamic and cyclical not only in its specific form, but also in relation to the other types of conflicts. For example an intra-national conflict can be transformed into an international conflict and vice versa. Nearly all the macro-level conflicts include different conflict types. Conflicts occurred in a specific space can spread towards different spaces, horizontally but also vertically just like an ecosystem. Ecosystem is defined as:

***Ecosystem**, the complex of living organisms, their physical environment, and all their interrelationships in a particular unit of space... An ecosystem can be categorized into its abiotic constituents, including minerals, climate, soil, water, sunlight, and all other nonliving elements, and its biotic constituents, consisting of all its living members. Linking these constituents together are two major forces: the flow of energy through the ecosystem, and the **cycling** of nutrients within the ecosystem (The Editors of Encyclopædia Britannica, 2017).*

At the crossroads of the different definitions above and from a broader social, historical and structural perspective we can define conflict as a violence-prone and dynamic relationship between at least two parties who have or perceive to have incompatible goals, interests or positions on the basis of some root causes based on social, historical or structural power and domination relations. From the perspective of this definition we reach to the definition that cyber-conflict is a new component of global conflict ecosystem.

Ocurrence of new spaces does not cause the previous spaces to be excluded or a replacement; on the contrary we observe the integration of the newcomers with the previous spaces. This integration complicates each space in itself and also creates a much more complicated system of warfare in which each component effect and feed each other. This is the **conflict ecosystem**.

**Time, Space, Technology and International Politics: Economy Politics of War**

Cyberspace is defined as a new / fifth space of international politics which is the first human-made space. The four kinetic spaces of international politics, that is to say the Land, Sea, Air and Outer-Space have also been the scene of war, naturally due to the fact which was briefly expressed by Clausewitz's words as "war is a continuation of politics by other means". Economy-political point of view to history considers politics on a basis called economy. A brief look into the history of war shows us that the occurrence, formation, expansion and concentration of these four spaces have been changed and shaped in time by a special factor called "technology" (Friedman & Friedman, 2015) which is a multiplier in production / economy. Although ancient Greek and especially Roman Empire had used ships mainly to transfer their troops, until the 16<sup>th</sup> century, war was an act primarily performed in the land, because the economy was based on agricultural production and labour force and the (Leonhardt, 2001) international commercial lines such as Silk Road were located in the land. Beginning from the 16<sup>th</sup> century geographical discoveries and new technologies gave rise to huge navies in order to control commercial lines starting to shift towards the oceans because the economy was based on commercial capitalism led by merchants trying to cross the borders. Massive production of raw materials and commodities led by 19<sup>th</sup> century's modern industrial capitalism and its structural need of surplus value transfer between capitalist and underdeveloped countries have been most important cause of the instinct of controlling the oceans. Therefore big powers of the international arena were the big naval powers. WWI was not only the evidence of critical importance of naval power in victory but also has been the scene for a newcomer. The first military aeroplanes used in WWI were a discovery and introduction of the third space in international politics and war. Technology and war had a dialectical relation and the effective use of air raids during WW2 has proven the importance of this new space. Jet engine, ballistic missiles and satellites developed on the basis of the new technological developments following WW2 has introduced the fourth, outer- space. This brief summary shows us that the occurrence of new spaces does not cause the previous spaces to be excluded or a replacement; on the contrary we observe the integration of the newcomers with the previous spaces. This integration complicates each space in itself and also creates a much more complicated system of warfare in which each component effect and feed each other. However each space has a specific relation with or the specific product of a specific historical economy-political development. On the basis of the facts stated above, the coincidence of globalization process and cyber-conflict cannot be considered as casual. Therefore, in order to understand the cyber-conflict phenomenon, the globalization process needs to be discussed.

## **Globalization Theories: Free circulation of capital, labour and conflicts!**

Only a short glance to the main components of what is called “globalization” shall be sufficient to perceive the parallelism between the globalization and cyber-conflicts. However before underlining this parallelism, it would be helpful to draw an outline of globalization. Due to its coincidence with the collapse of Soviet Union and related developments in the international politics, globalization is a highly ideological concept. Beginning from 1990’s it has been declared as the “end of history”, or “ultimate triumph of western liberal capitalism” (Fukuyama, 1992). However this “optimistic” perspective to history has collapsed within only a few years and the “peaceful” discourse surrounding the international politics disappeared and Huntington has been the precursor of the new “clash of civilizations” four years before the September 11 and the start of *War on Terror* (Huntington, 1996). According to one’s ideological stance and association with politics the definition and implications of “globalization” vary. Nonetheless, without denying the author’s subjectivity, we may define globalization as a new restructuring phase of capitalism on the basis of new technological developments especially in communications which enables and accelerates the circulation of capital, labour, ideas and dominant cultural products on a global scale. Such an inclusive definition will enable us to avoid from technological and economic determinism (Kellner, 2002). As Kellner points out is a “highly complex, contradictory and thus ambiguous set of institutions and social relations” (Kellner, 2002, p. 286). It could be noted that, the “contradictory” nature of globalization can be attributed to its dual nature first as an objective technological and economical fact and secondly as an ideological discourse which is utilised to legitimate the western neo-liberal system and imperialism as a centre – periphery relation. (Galtung, 1971) . In this chapter we will analyse the technological – economical aspect of globalization which is in parallel to the formation of cyberspace and cyber-conflicts.

Technical background of globalism has been formed by the technological developments especially in communication industry. New communication instruments have enabled the free circulation of capital, labour and ideas faster than ever. The space of these “new communication instruments” was internet. And when we call “cyberspace”, mostly we mean internet and the infrastructure to sustain and use it. According to a US military definition, “Cyberspace...is the Domain characterized by the use of electronics and the electromagnetic spectrum to store, modify, and exchange data via networked systems and associated physical infrastructures”;

(Podins, J., & M., 2013, p. 419). Since the cyber-conflicts are the extension of the kinetic conflicts in cyber-space, it can be suggested that cyber-conflicts would be impossible without internet and the very occurrence of internet itself has been the key factor or foundation for the extension of kinetic conflicts to a new space. “The Joint US Military definition for “cyber warfare” is “an armed conflict conducted in whole or part by cyber means. Military operations conducted to deny an opposing force the effective use of cyberspace systems and weapons in a conflict. It includes cyber attack, cyber defence, and cyber enabling actions.” (Podins, J., & M., 2013, p. 420). Here, we may suggest that globalization has enabled the free circulation of conflicts also.

## **WHAT IS NEW?**

### **First man made space in international relations: cyberspace**

Conventionally international relations take place on physical spaces which “provide opportunities for expanding power and influence in world politics” (Choucri, 2012, p. 5). These conventional physical spaces are described as land, sea, air and outer space (Kosenkov, 2016). These conventional spaces all were natural spaces and prior to the hegemony struggles of the international actors. Cyberspace as a new domain of international relations is radically different from the other four spaces. Although it is not a completely virtual space (because it comprises a physical infrastructure and as Choucri points out it includes logical building blocks, information content and actors (Choucri, 2012, p. 8); precisely it is not natural and the first man made space. This feature of cyberspace, on the contrary to the conventional spaces, makes the very formation and occurrence of this space an organic part of hegemony formation in globalization age. Conventional spaces were the arenas of hegemony struggle which were already existent but tried to be dominated by the hegemonic powers in international relations. Cyberspace is a domain which is at the very beginning created and expanded by the hegemonic powers who were able to produce and use the technical instruments necessary for the formation of this new domain. Therefore it can be defined not only as a conflict domain but also as a product of international conflict.

### **Transnational actors on the scene: Corporate involvement**

Conventional spaces in international conflict were the scene of a limited number of actors including the states, international organizations and some non-government organizations. However cyberspace has been a new scene which includes extremely much more actors especially the private companies (Gamero-Garrido, 2014), corporations, transnational companies and activists who are triggered by a wide variety of motives. A recent study on international cyber-conflicts shows that the 16 out of 17 cases analysed involved the corporations as actors in either attack or defence position (Gamero-Garrido, 2014) and the same study shows that all the analysed cases are an extension of the ongoing conflicts in kinetic spaces. Imperialism and globalization theories (Galtung, 1971) (Ari, 2013) (Held & McGrew, 2003) underline the dominant position of the corporate actors in general and transnational companies in particular in the international system. Involvement and active status of the transnational companies in this new domain have a difference from the previous period. In imperialism theories before the globalization period, monopolies had a national character and their interests were represented by the nation states. However in globalization period the transnational companies, due to their multi-national capital structure cannot be identified with a specific state. Therefore these transnational companies can be defined as completely “private” actors of which interests are represented by the global financial system and the very involvement and active status of these transnational companies in international cyber-conflicts can be considered as a factor which reinforces the already existent anarchy in international system. United Nations systems and some other international organizations, despite their weak and debatable characteristics, have acted as instruments which soften the anarchy and conflict-full nature of the international relations based. In globalization phase, these new actors (transnational companies) do not have any regulating superior authority. Although a few conferences are organized (Podins, J., & M., 2013), still there is not a regulating authority.

### **Military front changing shape: Diffusion of the front**

Only a short glance to the cyber-conflicts shows the fact that due to the erosion of the nation state borders against free circulation of capital, labour, ideology and conflicts on the basis of new technologies, armed conflict and “war” has changed its shape and diffused / spread out and globalized into a new type of conflict ecosystem. Derian, while addressing this fact, uses the word “virtual continuation of war by other means” (Derian, 2000, p. 771) According to Derian, this “virtuous war” actualizes violence from a distance with no or minimal casualties (Derian, 2000, p. 772). Cheap, diffused, globalized but crowded: these are some of the features of the

new “front”. Gregory defines this diffusion and globalization as the “the everywhere war” (Gregory, 2011) and empathizes the dominant status of United States in cyberspace and therefore cyber-conflicts. Tierney, by emphasizing the “war on terror” and “clash of civilizations / religions” discourses in global age, uses the words “globalization of war” (Tierney, 2006). Bousquet after defining the globalization as a “network society” emphasizes the importance of cyber networks for the future of military organization. (Bousquet, 2008).

## **Decentralization**

Just like globalization, cyberspace and cyber-conflicts has a decentralized appearance and again just like globalization, behind this decentralized appearance there is the dominance of hegemonic powers also for cyber-space and cyber-conflicts. Real time cyber-attack maps show that vast majority of the attacks are originated from the dominant powers struggling for global hegemony like US, China and Russia. “The United States, still the world's pre-eminent military superpower, is not the only nation preparing to fight the 'next war' in cyberspace. By the start of 2010 China, India, and Russia alongside the US, the UK and South Korea are among the first group of countries to establish formal command and control (C2) over military assets in the cyber-domain”. (Hughes, 2010, p. 523). Derian and Bousquet also emphasize the this domination. (Derian, 2000) (Bousquet, 2008). However, besides this seemingly “decentralization”, in fact there is an actual decentralization in the cyberspace. Unlike the conventional spaces where violent conflicts requires the possession of weapons and an infrastructure which are mostly expensive, in cyberspace only a personal computer is enough to become an actor in cyber-conflict. The massive production of computers and other electronic / mobile devices has made the inclusion of millions of actors in cyber-conflicts. Nearly all the literature emphasize this feature as a distinctive characteristic of cyberspace in comparison to the conventional spaces. (Bousquet, 2008) (Delpech, 2012) (Derian, 2000) (Friedman P. W., 2014) (Gamero-Garrido, 2014) (Gregory, 2011) (Hughes, 2010) (Kosenkov, 2016) (Lewis, 2013) (Libicki, 2012) (Libicki, 2012) (Podins, J., & M., 2013) (Schmitt, 2012).

Inner drive of global capitalism for massive production and free circulation of electronic and software products has given rise to the access of millions to the products which can easily be used as cyber-conflict instruments. The very nature of these products enables transforming them into weapons. This can and is used as a potential for the resistance against global capitalist system by large masses of activists. Some of these activists are the parts of democracy or human

rights based movements like global anti-capitalist movements, new social movements, Occupy Wall Street, etc. and from a wider and democratic perspective can be considered as an opportunity for democratic participation of the masses. However the same space and instruments are also used for terrorism purposes, like ISIS, Al Qaeda, etc.

Rapid, accessibility and non-visibility are some of the main characteristics of both globalization and cyberspace. Therefore non-visible attackers using easily accessed and rapidly developed instruments are the one of the basic characteristics of the cyber-conflicts. This makes warning and deterrence nearly impossible in cyber-conflicts and makes the cyber space much more anarchic than the conventional spaces. (Delpech, 2012) Also when we take into account that the regulation in cyber-space is not developed effectively, lack of accountability for destructive actions in cyberspace is one of the main problems to be solved.

## **CONCLUSION**

As we have seen above, globalization and cyber-space / cyber-conflicts, with their common features, have strict parallelism. From an economy-political perspective it can be suggested that cyber-conflicts are the new form of conflicts in the globalization age. This new form as an extension of the ongoing kinetic conflicts makes the global conflict ecosystem much more complicated and difficult to challenge. Despite this anarchic atmosphere in cyberspace, it should be noted that this space can be used as an opportunity for a more democratic and human rights based participation to global politics. The oppressed voices of the plurality, the disadvantaged and vulnerable social groups can have an opportunity to express themselves.

However usage of cyberspace for terrorism purposes by terrorist organizations and for hegemony purposes by dominant international powers can be defined as the two main problems encountered in cyberspace. In order to challenge these problems, a framework for regulation of cyberspace with the attendance of all the stakeholders including the democratic activists is a must. As the current status, the absence of such an inclusion, and frameworks including all the hegemonic / dominant powers will disable any peace process and mechanism which will effectively manage the cyber-conflicts.

## **REFERENCES**

- Arı, T. (2013). *Uluslararası İlişkiler Teorileri: Çatışma, Hegemonya, İşbirliği* (8. Baskı ed.). Bursa: MKM Yayıncılık.
- Bousquet, A. (2008, September). Chaoplectic Warfare or the Future of Military Organization. *International Affairs (Royal Institute of International Affairs)*, 84(5), 915-929.
- Choucri, N. (2012). *Cyberpolitics in International Relations*. Cambridge: MIT Press.
- Delpech, T. (2012). Space and Cyberdeterrence. In T. Delpech, *Nuclear Deterrence in the 21st Century* (pp. 140-157). New York: RAND Corporation.
- Derian, J. D. (2000, October). Virtuous War / Virtual Theory. *International Affairs (Royal Institute of International Affairs)*, 76(4), 771-788.
- Friedman, G., & Friedman, M. (2015). *Savaşın Geleceği: 21. Yüzyılda Güç, Teknoloji ve Amerikan Dünya Egemenliği (The Future of War)*. İstanbul: Pegasus Yayıncılık.
- Friedman, P. W. (2014). *Cybersecurity and Cyberwar: What Everyone Needs to Know*. New York: Oxford University Press.
- Fukuyama, F. (1992). *The End of History and the Last Man*. New York: Free Press.
- Galtung, J. (1971). A Structural Theory of Imperialism. *Journal of Peace Research*, 8(2), 81-117.
- Galtung, J. (1973). *Theories of Conflict: Definitions, Dimensions, Negations, Formations*. Hawaii: University of Hawaii Press.
- Galtung, J. (2007). Introduction: peace by peaceful conflict transformation – the TRANSCEND approach. In C. Webel, & J. Galtung, *Handbook of Peace and Conflict Studies* (pp. 14-32). New York: Routledge.
- Gamero-Garrido, A. (2014). *Cyber Conflicts in International Relations: Frameworks and Case Studies*. Boston: MIT and Harvard University.
- Gregory, D. (2011, September). The Everywhere War. *The Geographical Journals*, 177(3), 238-250.
- Held, D., & McGrew, A. (2003). *Küresel Dönüşümler: Büyük Küreselleşme Tartışması (The Global Transformations Reader)*. Ankara: Phoenix Yayınevi.
- Hughes, R. (2010, March). A Treaty for Cyberspace. *International Affairs (Royal Institute of International Affairs)*, 86(2), 523-541.
- Huntington, S. (1996). *The Clash of Civilizations and the Remaking of World Order*. New York: Simon and Schuster.
- Jackson, R. (2015). Towards critical peace research: lessons from critical terrorism studies. In I. Tellidis, & H. Toros, *Researching Terrorism, Peace and Conflict Studies: Interaction, synthesis, and opposition* (pp. 19-37). New York: Routledge.

- Kellner, D. (2002, November). Theorizing Globalization. *Sociological Theory*, 20(3), 285-305.
- Kosenkov, A. (2016). Cyber Conflicts as a New Global Threat. *Future Internet*, 8(45), 1-9.
- Kriesberg, L. (2012). Mediation in Conflict Systems. *Systems Research and Behavioral Science*, 29, 149-162.
- Leonhardt, M. (2001). *Conflict Analysis for Project Planning and Management: A Practical Guideline Draft*. Berlin: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH.
- Lewis, J. A. (2013). *Conflict and Negotiation in Cyberspace*. Washington: CSIS (Center for Strategic and International Studies).
- Libicki, M. C. (2012). *Crisis and Escalation in Cyberspace*. New York: RAND Corporation.
- Paul, C., Porche, I. R., & Axelband, E. (2014). Confirming the Analogy: How Alike Are U.S. Special Operations Command Forces and Contemporary Cyber Forces. In C. Paul, I. R. Porche, & E. Axelband, *The Other Quiet Professionals* (pp. 31-46). New York: RAND Corporation.
- Podins, K., J., S., & M., M. (2013). 5th Conference on Cyber Conflicts: Proceedings. Tallin: NATO CCDCOE.
- Schmitt, M. (2012). Classification of Cyberconflict. *Journal of Conflict and Security Law*, 17(2), 245-260.
- Swanström, N. L., & Weissmann, M. S. (2005). *Conflict, Conflict Prevention and Conflict Management and beyond: a conceptual exploration*. Uppsala: Central Asia-Caucasus Institute and Silk Road Studies Program.
- The Editors of Encyclopædia Britannica. (2017, December 6). *Ecosystem*. Retrieved from Encyclopædia Britannica: <https://www.britannica.com/science/ecosystem>
- Tierney, N. (2006). Religion, the Globalization of War, and Restorative Justice. *Buddhist-Christian Studies*, 26, 79-87.
- Wallensteen, P. (2007). *Understanding Conflict Resolution: War, Peace and the Global System*. London: SAGE Publications.