

## Summary of doctoral dissertation

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title: The Question a Just War Principles Application to the Phenomenon of Cyberwarfare

The main goal of the dissertation is to identify a proper methodological approach towards application of a just war principles into the realm of cyberwarfare. This goal is expressed in the research question: *How the just war principles should be interpreted in order to describe the moral rightness of a cyberwarfare.* A defended hypothesis of the dissertation assumes that a proper interpretation of the just war principles has to be made in line with a perspective delivered by the coherence method, which is contemporary the most widely taken approach in the field of computer ethics. A method accepted in the dissertation is based on a conceptual analysis of various interdisciplinary standpoints currently present in the literature.

The answer to the main research question requires to consider three particular issues, i.e.: the nature of cyberwarfare, the scope of just war theory and the alternative methods of a moral principles application. An analysis of these problems formed three separate chapters of the dissertation.

In order to apply the just war principles to cyberwarfare it is necessary to show that indeed it is a war-type phenomenon. Thus description of the nature of cyberwarfare is a subject of the first chapter. Given that the cyberwarfare takes place in the cyberspace, a complete and coherent description is to take into account the features of cyberspace. In the literature there are several standpoints on its nature. The dissertation presents them in a gradual manner, beginning with strongly reductionist approaches (by Joseph Kizza and David Koepsell) through a moderate standpoints (by John Arquilla and Luciano Floridi) up to an emergent concepts of cyberspace (by David Clark and Martin Libicki). A widely accepted current view on the nature of cyberspace describes it as a purely technological sphere. In the dissertation it is conceived as a reductionist view. Such a terminology is used due to a limited possibility of moral considerations that could have been taken with regard to the notion of such a mediator of human actions. A moderate approaches towards cyberspace employ concepts of infosphere and noosphere thus setting the cyberspace in a context of human knowledge and information processing. This way of perceiving cyberspace opens broader scope of possibilities for moral assessment of human actions mediated by cyberspace. Finally, the emergent concepts of cyberspace perceive it as a domain built on a connection of several layers: physical, anthropological, epistemic and societal. This notion introduces to the debate the element of human values that are expressed through the use of cyberspace. Hence, the emergent concepts of cyberspace allow for a complementary discourse on

human actions mediated by the information and communication technology.

Also, these concepts allow for an interpretation of cyberwarfare as a type of war. As long as cyberwarfare is an organized and hostile pursuance of political goals by state actors, it can be perceived as a type of war. Various standpoints on cyberwarfare that are present in the debate broadly describe the domain of cyberwar as a combination of political, anthropological and epistemic elements. This combination is revealed also in the description of the mechanisms of cyberwarfare. These mechanisms can be generally characterized as focused on an acquisition, processing and usage of information by means offered in cyberspace for political purposes. The specifics of cyberwar mechanisms impact its uniqueness and influence the character of moral problems that are generated. These problems have been categorized as referring to a strategic and to an operational form of cyberwarfare.

The second chapter of the dissertation discusses the scope of the just war principles that are to be applied to cyberwar. Given that the just war theory provides a proper ethical framework for moral considerations on war, an application of just war principles requires to set a scope of these principles. Current debate contains three main ideas in this regard. The dominant view, influenced mainly by Michael Walzer, limits the just war principles to their legal form enclosed in the UN Charter. A standpoint of Jean Bethke Elshtain extends the scope of just war theory to a philosophical tradition that originated from the Augustine's thought. Even broader view presented by James Turner Johnson points to the fact that the just war tradition arises from a certain set of values that were present in the Western Civilization long before Augustine. The last perspective is accepted in the dissertation due to the broadest interpretation scope of the just war principles. The rationale for the acceptance of the broadest perspective arises from the limitations of the legal interpretation of the just war theory. This interpretation was codified for the regulation of a traditional warfare and remains insufficient for the regulation of cyberwar. The view of J. Johnson underpins the philosophical analysis of individual just war criteria undertaken in the dissertation.

The analysis revealed three fundamental features of the just war theory that are being overlooked in the current debate on just cyberwar. The criterion of proper authority cannot be reasonably applied to the type of conflict where the one of opposing subjects is not a state actor. Additionally, the philosophical form of the just war theory emphasizes the essential dependence of the *jus in bello* criteria on the criteria of *jus ad bellum*. Furthermore, there are philosophical and historical arguments supporting the statement that some criteria of the just war should be considered as primary principles of the just war.

As mentioned, the philosophical argumentation of the just war theory is being currently overlooked in the debate on just cyberwarfare. Most of the authors consider the just cyberwar solely from the legalist point of view (Schmidt, Rid, Ziolkowski). Such a perspective resembles the legal

interpretation of the just war theory and bears some of its methodological difficulties. The second group of authors describes just cyberwar from a broader perspective covering both legal and societal arguments (Simpson, Dipert, Taddeo). The standings presented by those authors remain fragmentary and methodologically unclear. They lack of fundamental methodological premises concerning the specifics of the subject of the discourse. This fact entails the state, where questions about the goal and method of the discourse linger unanswered.

This methodological gap is filled in by the considerations present in the third chapter of the dissertation. A perspective delivered by the computer ethics is accepted as a source of potential solutions. This branch of science developed a number of methodological concepts referring to the ethical considerations of moral problems generated by cyberspace. These concepts were elaborated during the so called uniqueness debate that considered methodological autonomy of the computer ethics. Out of a wide range of positions three statements were found as suitably describing the just cyberwar issue. The question of just cyberwar is a new type of traditional question about the moral rightness of war. The technology employed in the course of cyberwar creates a new empirical context, which does not rise a thoroughly new moral problem for ethical considerations. For this reason also the goal of ethical discourse remains unchanged. It is the development of specific norms of moral judgment suited to a problem of the just cyberwarfare. In this perspective, a coherence method of computer ethics is the most suitable way of applying the just war principles into the domain of cyberwarfare. This method inspired by Rawls' notion of reflective equilibrium and completed by the element of counterfactual reasoning allows for effective and reasonable application of just war principles. Selected method sets the ground for an interdisciplinary argumentation that is essential for the description of the just cyberwar.

All in all, the answer to the research question of the dissertation states that the interpretation of the traditional just war principles has to take a broad explanatory perspective covering a proper interpretation of cyberwar, a philosophical interpretation of the just war theory and a coherent method of justification supplemented by the notion of counterfactual reasoning.

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