

# CHOSEN ASPECTS OF THE SOFTWARE PIRACY

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Damages caused by the software piracy according to the anniversary globally study of the BSA and ADC reaches in the year 2006 39,576 millions USD. This means annual increase about 5,104 millions USD towards year 2005. The highest damages are caused by software piracy in the regions with its relatively low rate. These regions inter alia they have relatively good and extensive legal protection of software. Despite the amounts of these legal regulations the level of the software piracy is still too high and damages are still increased. Are these legal regulations ineffective? Why the users risk legal regresses and despite the threat of the punishment they still use illegal software. How the rate of the software piracy can be lowered to acceptable level and what role can be played by the law?

In research of the true and expected behavior of the individuals there is at the present more utilized the game theory. To research the behavior of the users and to find an answer why the users utilize illegal software I have decided to use a game theory. Thereafter I will try to define a task of the law as an instrument of the protection of the legal software. For my analysis I have decided to select a game called prisoner's dilemma. Standard Prisoner's Dilemma has always two players. In this game players have two possible options for their behavior. They can chose either to cooperate or to defect each other, so they following the same interest or they can watch their self interests. The game may be repeated only once, or it may have several rounds, so we talk about repeated game. In the standard scheme of Prisoner's Dilemma one of the players can get much more by the defect, than by the cooperation. However if the second player also defect they will lose both. In this situation the best solution for the players is to cooperate. The cooperation will assure profit for both of the players. This profit won't be so high as if one of the players preserved selfishly, but the profit

is certain and nobody loses. Moreover the cooperation motivates the players to repeat the same game and to gain from this game. This state will form Nash equilibrium. The Nash equilibrium is the state where each player is assumed to know the equilibrium strategies of the other players, and no player has anything to gain by changing only his or her own strategy. In other words, to be a Nash equilibrium, each player must answer negative to the question: "Knowing the strategies of the other players, and treating the strategies of the other players as set in stone, can I benefit by changing my strategy?" How we can ensure a cooperation of the players and the equilibrium if the game is not repeated. In this case theory of games suggests an existence of the enforceable regulations of the game or an existence of the agreements, which performance can be enforced. Enforceability of the regulations of the games or the player's agreements expects the existence of specific authority, which is powered to punish the players. There exists a room for law as a tool of recovery of the existing rights and responsibilities resulted from the legal regulations or from the agreements.

If we apply the prisoner's dilemma on the case of the two software users, they will have two options. The first option is to use legal software the second one is to use a pirated copy. It seems that with the use of the pirated software the users can just obtain. However the unlicensed usage of the software can be profitable for the users only when the game is not repeated. By the unlicensed usage of the software does not originate a damage to users, but this conduct leads to damage to the producers and distributors of the software. By the repetition of this game the damages caused to the software companies they increase rapidly and these financial resources may miss them by the development of the software. Ultimately these damages will lead to rise in price of the software and to the reduction of its qualities as well as the qualities of the services provided with the software. Finally these damages can lead to the bankruptcy of the software companies.

By the software this game is repeated in a large scale. We have worldwide over billion users of the software and thousands of the software products. By this extent of the players and growing damages, as well as costs of the software development it is only a question of time when the casualties produced by the software piracy will affect all users. At present regarding to the descending price of U.S. dollar, as well as the fact that the producers of the software find the ways how to reduce costs of the distribution the situation is not yet critical. From theory of games it is resulted, that by the repetition of this game the utilizing of the legal software should represent the Nash equilibrium. But we still have not reached the Nash Equilibrium. It is necessary to force the users achieve it sooner than wait for achieve the equilibrium by natural way.

But how this equilibrium achieve? It is necessary to realize that the bone of contention lies in our behavior. How we notice the environment around us, how we respect our environment, natural resources, as well as work of the other people. Today, when we stand before the global problems as it is global warming, food crisis or poverty we cannot continue in selfish behavior. The first we should revalue our behavior and to start to be responsible. Next step should be the increase of the education and to gain knowledge of the problem of software piracy. Concerning the law as a tool of protection of the software, there is no need to produce more legal rules. It is necessary to reenforce the application of the norms in force, because the enforcement of these norms is minimal. Moreover it is needed to create a special police units and forces to deal with the software piracy and provide them with a necessary equipment and jurisdiction. It should be improved international cooperation of the police and the judicial organs, because piracy is not a problem of one country but it is a global problem.

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