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ECONOMY LAW AND ECONOMIC ANALYSIS OF LAW AND THE IMPACT ON INTELLECTUAL PROPERTY IN THE COMMON LAW SYSTEM

DIREITO DE ECONOMIA E ANÁLISE ECONÔMICA DO DIREITO E O IMPACTO NA PROPRIEDADE INTELECTUAL NO SISTEMA COMUM DE DIREITO

DERECHO ECONÓMICO Y ANÁLISIS ECONÓMICO DEL DERECHO Y EL IMPACTO SOBRE LA PROPIEDAD INTELECTUAL EN EL SISTEMA DE DERECHO COMÚN

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ABSTRACT

This article analyses the concept of economics applied to law in order to understand the school's analysis of legal phenomena by economic principles that emerged in 1960 in the United States of America, tracing the impacts on intellectual property law in the Common Law system. This study relies on the hypothetical-deductive method, with a focus on economic and legal literature, to conclude that intellectual property legislation is frequently modernized, especially at the time of major socio economic transformations such as an industrial revolution with the effect of boosting development and innovation, ensuring economic growth with the proper security and protection of industrial secrets and expertise.
Keywords: law; economics; economic analysis of law.

RESUMO

Este artigo analisa o conceito de economia aplicado ao direito, a fim de compreender a análise da escola dos fenômenos jurídicos por princípios econômicos que surgiram em 1960 nos Estados Unidos da América, traçando os impactos no direito de propriedade intelectual no sistema Common Law. Utiliza o método hipotético-dedutivo, com esteio na literatura econômica e jurídica, para concluir pela necessidade de frequente modernização da legislação sobre propriedade industrial, principalmente em tempos da chamada Indústria 4.0, com efeito no impulso do desenvolvimento e inovação, fazendo assegurar o crescimento da economia com a devida segurança e proteção dos segredos e expertises industriais.
Palavras-chave: direito; economia; análise econômica do direito; propriedade intelectual; indústria 4.0.

RESUMEN

Este artículo analiza el concepto de economía aplicada a la ley para comprender el análisis de la escuela de los fenómenos legales por los principios económicos que surgieron en 1960 en los Estados Unidos de América, rastreando los impactos sobre la ley de propiedad intelectual en el sistema de Derecho Común. Este estudio se basa en el método hipotético-deductivo, con un enfoque en la literatura económica y legal, para concluir que la legislación de propiedad intelectual se moderniza con frecuencia, especialmente en el momento de las grandes transformaciones socioeconómicas, como una revolución industrial con el efecto de impulsar el desarrollo y innovación, asegurando el crecimiento económico con la seguridad y protección adecuadas de secretos industriales y experiencia.

Palabras llave: derecho; ciencias económicas; Análisis económico del derecho.

1 INTRODUCTION

In this article we will analyse the concept of law and economics in order to understand the assumptions of this academic school of analysis of legal phenomena by economic principles that emerged in 1960 in the States United States of America.

Although the American School of Economic Analysis of Law began its activities in 1960, Adam Smith, in the eighteenth century, analysed the economic effects on mercantilist legislation and the application of economics to understand the regulation of non-market activities had an indirect origin with Jeremy Benthan (1789), and the school of utilitarianism, an ethical theory that answers all the questions about what to do, what to admire and how to live, in terms of maximizing utility and happiness.

Bentham has a significant and extensive analysis of criminal law, law enforcement, and legal procedures, having systematically examined how the behaviour of social actors occurs when faced with legal incentives and thus able to assess the results of a state measured through the level social well-being.

The present study is justified by the academic contribution to the relevant and interdisciplinary subject that has vast possibilities for research of its juridical and economic aspects, which, of course, will not be exhausted with the present work, in general, for the reflection of jurists and economists who are interested in going deeper into the proposed theme, for which an essentially bibliographical research will be presented in this work.

For didactic purposes, the article will be divided into six sections, which will explore, and are directly related to the specific objectives outlined above. The first section will provide an introduction to the theme. The second section will address the main considerations of social / economic transformations in the legal order. The third will address the concept of economy and law. The fourth will deal with the US School of Economic Analysis of the Direct. The fifth section will focus on the economics perspective of Intellectual Property. Finally, the sixth chapter will bring the article to a conclusion.

2 SOCIAL AND ECONOMIC TRANSFORMATIONS' REFLECTIOSN ON THE LAW

Social / economic transformations directly impact the law. It is fundamental for the legal system to keep up to data and to follow the social / economic changes, since the legitimacy of the same is dependent on the society.

The French Revolution was a relevant landmark for both economics and law, due to the disruption of the existing state structure, the era served as an instrument of abuses of monarchs and privileges for the nobility, the French Revolution represented the beginning of the Contemporary Age founded on the influence of economic liberalism.

The bourgeois state was also a great enabler of the ideals of non-intervention, in the transition from the nineteenth century to the twentieth century according to Eros Grau (2012, p.18), "to refer, in broad strokes, to the previous regime, which was not allowed to interfere with the State in the 'natural order' of the economy, even though it was responsible for the defense of property."

The essence of liberal law was set forth in Article 4 of the Déclaration des droits de l'homme et du citoyen de 1789: consists in being able to do everything that does not harm the neighbour.'

The freedom brought by the French Revolution allowed the exasperation of the dichotomy between public law and private law creating space for autonomy for the free realization of the will of individuals, who could govern their own lives without the interference of the state.

> The monstrous *Leviathan* seemed at last in the field of private relations, each individual was free to do everything that did not harm his neighbor. It was then believed that, left free to pursue their own happiness, men would achieve the greatest common good. [...] ... tamed the Leviathan, the right now proposed to confront the wolf. (Schreiber, 2014, p. 3)

However, the freedom won allowed the degradation of man by man, as seen in the Industrial Revolution, a historical moment in which people were subjected to inhuman conditions in terms of housing and work to meet their basic needs, all current laws, namely the liberal right away that the state of relations between individuals.

The abuses have shown that it is not enough for man to be protected from the excesses of the state and the aggression of his fellow, should the law protect the man from himself, that is, "tamed the Leviathan, the law is now facing the wolf. "(SCHREIBER, 2014, p.3)

Szaniawski states that:

> Man, as a social being, living in contemporary society, is governed in his relations by a series of norms and principles that seek to protect him and guarantee him number of rights and, on the other hand,

> impose an equal number of duties. Among the rights we find a certain category that constitutes the "first rights", the fundamental rights, which are intended to protect the individual human from any series of attacks against it released. They are situated as "first rights", the rights of the personality that constitute the protection of the attributes of the human personality. (SZANIAWSKI, 2005, p. 19)

Dimitri Dimoulis affirms that it is necessary to have three elements for the existence of fundamental rights:

> "a) *State*. It is a centralized power apparatus that can effectively control a given territory and impose its decisions through the Public Administration, the Courts, the Police, the armed forces. Without the existence of a State, the declaration of fundamental rights lacks practical relevance. These could not be guaranteed and fulfilled and would lose their primary function, that is, of limiting the power of the State in the face of the individual.
>
> b) *Individual.* It may seem superfluous to say that the existence of individuals is a requirement of fundamental rights. There are no people since the beginning of humanity? From the point of view of philosophy and political theory, the answer here is negative. In societies of the past, people were considered *members* of large or small collectivities (family, clan, village, fiefdom, kingdom), subordinated to them and deprived of their own rights.
>
> c) *Regular normative text of the relationship between State and individuals*. The regular role between the two elements *above*

> describedis fulfilled by the Constitution in the sense of form, which declares and guarantees certain fundamental rights, allowing the individual to know its sphere of action free from state interference and, at the same time, to bind the State to certain rules that prevent the unjustified restriction of the guaranteed spheres of individual liberty. The text must be valid throughout the national territory and must contain supremacy, that is, a binding force superior to that of other legal norms. (DIMOULIS, 2013, pp. 10-12)

For Dimitri Dimoulis these three conditions only came together in the second half of the eighteenth century, in the Bill of Rights period in the United States of America in 1776, and the Déclaration des droits de l'homme et du citoyen in 1789 (French Revolution).

Doctrinally, fundamental rights are consolidated in three dimensions. The first fundamental rights appeared throughout the eighteenth century as the product of a historical scenario marked by liberal-bourgeois thinking, Enlightenment, rationalism and political revolutions.

These are rights inherent to individuality, linked to freedom, equality, property, and resistance to the most diverse forms of oppression, in this dimension are affirmed rights of the individual vis-à-vis the State, more specifically as rights of defense, prescribing autonomy individual rights before the state power, being considered as rights *negative* to determine abstention of the State in favour of the formal guarantee of the individual rights based on the principle of freedom.

The *second dimension* brings rights stemming from the impacts of the industrialization process and the serious socioeconomic problems suffered by Western society during the nineteenth century and the first decades of the twentieth century. In the historical contextualization of second-dimensional rights, as Antônio Carlos Wolkmer (1994, p.8)

teaches, "competitive capitalism evolves to the financial and monopolistic dynamics, and the crisis of the liberal state model makes possible the birth of the State of Good -To be Social, which starts to arbitrate the relations between capital and labour". In this context, rights of a positive dimension arise that demand from the State an active behaviour, a benefit.

The third dimension consists of so-called trans-individual rights based on the principle of fraternity or solidarity. The rights holder ceases to be the individualized man passing to the collectivities (people, nation, local and international communities), being characterized, therefore, as rights of collective or diffuse ownership. Among the main fundamental rights of the third dimension are the rights to peace, to self-determination of peoples, to the ecologically balanced environment, the right to preserve the historical and cultural heritage of humanity and the right to communicate.

The expression of *fundamental rights* is not the only one that serves to designate such rights, there are a number of other expressions, including *individual freedoms, public freedoms, fundamental freedoms, human rights, constitutional rights, subjective public rights, human rights, natural rights and rights subjective*. (DIMOULIS, 2018, p. 39)

The evolution of philosophical, anthropological and legal science has allowed the protection of the rights of man in the face of the State, of man in the face of his fellow man, and of man in the face of himself.

3. ECONOMIC AND RIGHT

Law and the Economy as social sciences aim at the study and ordering of people's behaviour.

Economics researches how the individual, from his rational choices, makes decisions and what the consequences are generated by them. Law analyses human behaviour and tends to regulate it based on the values elected by society.

Economics can be understood as "the science that studies human behavior as a relation between ends and scarce means that have alternative uses" (ROBBINS, 1945 APUD GICO JR, 2010, p.17).

In historical terms, since the 18th century with the publication of the works of Jeremy Bentham (1748-1832), the economy is conceived as a theory of rational choices, a study focused on incentives and behavioural restrictions that is not monetary in nature. This way of conceiving the economy is taken up and reinvigorated by authors related to the "School of Chicago", for example: Milton Friedman, Ronald Coase and Gary Becker (POSNER, 2010).

According to Ivo Teixeira Gico Junior, the economic model of analysis is based on the following postulates:

a) The scarcity of resources in society. As resources are scarce, there are economic and legal problems. Thus, scarcity requires that choices be made between possible and excluding alternatives;

b) Every choice presupposes a cost, the opportunity cost. Such cost is associated with an interesting second feasible allocation for the resource that has been deprecated;

c) How choices should be made, from a cost-benefit perspective, the conduct of economic agents is rational maximizing;

d) People respond to incentives;

e) Free agents interact in social contexts where there are exchanges called markets;

f) Markets are balanced when the costs associated with each exchange equals the benefits accrued;

g) When equilibrium occurs, a state of efficiency is achieved, Pareto efficiency, that is, no other possible allocation of resources will improve one's situation without worsening that of another.

The Economics, in this way, studies the way in which the individual satisfies his needs, presupposing the law of scarcity, when confronting the needs and finitude of resources, as explained by Juarez Alexandre Baldini Rizzieri:

> Explaining the economic sense of scarcity and necessity, it becomes easy to understand that "Economics is the social science that deals with the management of scarce resources between alternative uses and competitive ends," or that "Economics is the study of social organization by which men satisfy their needs for goods and services scarce ". (. Rizzieri, 2006, p 11)

But the law can be understood as a set of standards or rules of conduct, as explained by Norberto Bobbio:

> The best way to approach the legal experience and grasp its characteristic features isconsider the law as a set of rules, or rules of conduct. (Bobbio, 2016, p. 25)

The contract law doctrine understands that the source of the law is intimately linked with life in society, that is, with the creation of the state, when it occurs the break with the state of nature in which lived the individual, in which his survival was diametrically linked to his physical fitness.

Rosseau[4], in his famous work Social Contract, states that man has reached the point

[4] I suppose men have reached the point where the obstacles which are detrimental to their conservation in the state of nature outweigh, by their resistance, the forces that each individual can employ to remain in that state. Then this primitive state can no longer subsist, and the human race would perish if it did not change its mode of being. Since men can not engender new forces, but only to unite and direct existing ones, it has no means of

where his strength as an individual was insufficient to overcome the obstacles detrimental to its conservation in the state of nature in which he lived, making it necessary to join forces for survival, which led to the emergence of the state.

Emery Kay Hunt and Howard J. Sherman explain that the survival of human beings is linked to life in society:

> "Humans, to survive, need to organize in society. Unlike some animal species which, in relative isolation, are able to live in a reasonably adequate way, humans were not endowed by nature with the physical fitness necessary to obtain the material conditions of life by themselves. Humans survive and progress because, living in groups, they have learned to subdivide tasks and to use instruments of labor (or capital) in increasing quantity and of ever better quality, have enabled man to magnify his power extraordinarily over nature, as well as to develop its potential to produce and satisfy the material necessities of life. "(HUNT and SHERMAN, 1993, p.9)

The creation of the state broke with the state of nature in which man originally lived, a period in which man Hobbes claims that there was a "*bellum omnium against omnes*."

preserving itself, but by forming, by aggregation, a set of forces that can overcome resistance, applying to a single motive and making them act together. (...) Immediately, instead of the individual person of each contractor, this act of association produces a moral and collective body composed of as many members as the votes of the assembly receive, by that same act, their unity, their common self, their life and his will. This public person, thus formed by the union of all the others, once took the name of City, and today that of Republic or of political body, which is called by its members of State when passive, sovereign as active and of Power when compared to the similar six. As for associates, they collectively receive the name of the people and are called, in particular, citizens, as participants in the sovereign authority, and subjects, while submitted to the laws of the State. These terms, however, are often confused and taken for each other; it is enough to distinguish them as employed in all their precision. (ROUSSEAU, 2006, pp. 20-22)

> ... continues Hobbes, in this state of nature in which all men are equal, and in which each has the right to use the force necessary to defend his own interests, there is never any certainty that the law will be respected by all and so the law itself [5]loses all effectiveness. The state of nature constitutes a state of permanent anarchy, in which every man fights against others, in which - according to the Hobbesian formula - there is a "*bellum omnium contra omnes*." To get out of this condition, we must create the State, we must therefore assign all force to a single institution: the sovereign. In such a case, in fact, I can (and should) respect the covenants, not kill, etc., in general obey the natural laws, because I know that the other will also respect them, since there is someone who can not oppose, whose force is indisputable and irresistible (the state), which would constrain him to respect them if he did not want to do so spontaneously. (BOBBIO, 2006, p.35)

The beginning of life in society led to the creation of the State, economic relations and law.

The communication between jurists and economists imposes the overcoming of methodological differences, as Bruno Meyerhof Salama points out:

> While the Law is exclusively verbal, the Economy is also mathematical; while the Law is markedly hermeneutic, the Economic is markedly empirical; while the Law aspires to be just, the Economy aspires to be scientific; while economic criticism is at cost, legal criticism is legal.

> This makes the dialogue between economists and jurists inevitably turbulent, and generally quite destructive. (SALAMA, 2008, p. 49)

The need for inter-relationship between the economy and the law becomes clear by integrating "an indivisible whole, a kind of verse and reverse of the same coin, and it is difficult to what extent the law determines the Economy, or, on the contrary, it influences it" (NUSDEO, 2008, 30).

In this way, economics, when studying the production and distribution of goods and services, dynamising the market and capital, must consider the value of the individual; just as the law must consider the scarcity of resources in the distribution of wealth in society.

Boaventura de Sousa Santos, when analysing economics and law, states that:

> "law, which reduced the complexity of legal life to the dryness of dogmatics, rediscovers the philosophical and sociological world in search of lost prudence; the economy, which has legitimized quantitative and technocratic reductionism with the intended success of economic forecasts, is forced to recognize, in the face of the poverty of results, that the human and sociological quality of agents and economic processes enters through the window after being expelled by the door. "(SANTOS, 2010, pp. 74 and 75)

The Economic Analysis of Law or Law and Economics is a way of understanding legal thinking through the application of economic theory to the examination of the formation, structure and economic impact caused by Law, applied under the focus of economic efficiency (BENACCHIO, 2011).

Unlike the traditional conceptions that value the study of norms, their content and scope, juseconomists consider law as a "set of rules that establish costs and benefits for the agents that govern their behaviour in function of such incentives." (GICO JR, 2010, p.21). They prioritise the study of the behaviour of individuals against a given norm and the consequences, behavioural, that would cause a possible normative change.

4 ECONOMIC ANALYSIS OF LAW

In 1960, Ronald H. Coase published the famous article The Problems of Social Cost in The Journal of Law and Economics, n. 3, of the University of Chicago, where he states that if agents involved in externalities can negotiate (without transaction costs) from well-defined state property rights, they can negotiate and reach an agreement in which externalities will be internalized, such as describes Juliana P. Guia:

> In a situation without transaction costs existing institutions have no influence on the efficient allocation of resources, because the rights can be freely negotiated between the parties, in order to achieve efficient allocation, regardless of their initial distribution. However, the reality is different and transaction costs are only in fact positive and often very high. Thus, law has a significant role of influence in the actions of economic agents and can contribute to the efficient allocation of available resources or, on the contrary, to harm it. (GUIA, 2006, pp. 246-247)

The work of Ronald H. Coase began the movement called Economic Analysis of Law or Law and Economics, as it is known in the United States of America, through which it began to analyse legal issues based on economic principles.

In addition to the traditional Chicago School of Law and Economics, there are the Public Choice Theory schools, Institutional Law and Economics, and the New Institutional Economics, which focus on understanding the Economic Analysis of Law (MERCURO and MEDEMA, 2006).

Alejandro Bugallo Alvarez points out this situation as follows:

> "The movement is not homogeneous, on the contrary, it congregates several tendencies, such as the one linked to the School of Chicago, also denominated *conservative*, identified with the figure of Richard Posner, and integrated, among others , by Landes, Schwartz, Kitch and Easterbrook ,; the *liberal-reformist*, with Calabresi as a representative figure and composed of a diversity of authors such as Polinsky, Ackermann, Korhnhauser, Cooter and Coleman; and a third way, denominated by Leljanovski as *neo-institucionalist tendency*, that separates of the previous ones as much in thematic as in the methodology and is integrated, among others, by A. Allam Schmid, Warren J. Samuels, Nicholas Mercúrio and Oliver E. Williamson. The analysis of economics and law has been the analysis
> economic of Law, which examines the law in light of the principles of economics, applying economic theory in the examination of the formation, structure, and economic impact caused by law, which should be applied from the point of view of economic efficiency. "(ALVAREZ, 2006, p 53)

The Economic Analysis of Law is characterized by the analytical and empirical instrumental application of economics to the analysis of the factual implications of the legal system, as Ivo Teixeira Gico Junior puts it:

> [...] is nothing more than the application of the analytical and empirical instruments of economics, in spec and the economics of social welfare, in order to understand, explain and predict the factual implications of the legal order, as well as the logic (rationality) of the legal system itself. In other words, the AED is the use of the economic approach to try to understand the law in the world and the world in law. (GICO JR, 2010, p.18).

The Economic Analysis of Law aims to give security and predictability to the legal order, just as markets, for proper functioning need these predicates, the Economic Analysis of the Right tries to add maximization, balance and efficiency legal relationships.

Renato Leite Monteiro states that the main foundations of the Economic Analysis of Law are security and predictability:[6]

> The main foundation of the Economic Analysis of Law would be to bring security and predictability to the legal system. In the same way that markets, in order to be endowed with an adequate functioning need these postulates, the AED tries to charter maximization, balance and efficiency the legal relations. (MONTEIRO, 2009)

[6] MONTEIRO, Renato Leite. Análise Econômica do Direito: Uma Visão Didática. Available in: http://www.publicadireito.com.br/conpedi/manaus/arquivos/anais/sao_paulo/2425.pdf - access on December 10, 2018.

The main contribution of the Economic Analysis of Law is "to introduce a methodology that contributes significantly to the understanding of social phenomena and that assists in the rational taking of juridical decisions" (GICO JUNIOR, 2010, p.14).

The Economic Analysis of Law is based on methodological individualism, rational choices and efficiency, because it understands that individuals always act to maximize their satisfaction, according to external incentives, similar to Jeremy Bentham's utilitarianism.

In methodological individualism, every collective norm is the sum of individual responses, individual human action being the starting point.

The maximization of rational choices, in turn, derives from individualism, since one tries rationally to establish the difference between benefit and costs arising from their behaviours.

The efficiency can be analysed according to the Pareto study, that is, it is not possible to improve the situation of one agent without worsening that of another agent. This situation is called "Pareto Optimum".

The efficiency, as opposed to the Pareto study, can be analysed by the Kaldor-Hicks criterion, also known as maximization of well-being, that is, economic agents should be interested in achieving the improvement, even if they have to pay compensation for get the assent of the impaired.

The search for efficiency, by the Economic Analysis of Law, in the formulation, application and interpretation of normative texts must observe six norms (FORGIONI, 2005)[7]:

1) No right has to be absolute, because it is always necessary to examine the costs

[7] FORGIONI, Paula A. Análise econômica do direito (AED): Paranóia ou mistificação? In: Revista de direito mercantil, industrial, econômico e financeiro. São Paulo: Malheiros, Year XLIV, July-September / 2005, p. 244-247.

and benefits to all parties involved in the relationship, not just one of them;

2) The legal system should proportionate the reduction of transaction costs;

3) It is up to the law the "regulatory milestones", reducing the risk to be borne, increasing the degree of security and predictability;

4) Due to the fact that state intervention generates costs, it should only be admitted when necessary to neutralize market failures;

5) The legal norms are nothing more than incentives or non-incentives to which the economic agents act of certain form. The sanction is simply a price that will be valued by the economic agent according to the logic of the cost / benefit of its possible behaviors;

6) The only function of law is to enable better allocative efficiency, neutralizing failures. If there are no failures, the market will be responsible for the allocation of resources.

The Economic Analysis of the law brings together Economics and Law by perceiving and assuming the fact that an individual's action entails costs and benefits to another and, in this view, chooses the legal framework that would best align individual behaviours with the interest of society (RODRIGUES , 2007, p.35).

The four major contributions that Economic Analysis of Law can offer, according to Ivo Teixeira Gico Junior, are:

1) Comprehensive theoretical framework superior to intuition and common sense;

2) Consistent analysis method for the collection and testing of hypotheses on the impact of norms that affect human behaviour;

3) Theoretical proposal that makes possible a holistic understanding of the world and allows more effective solutions in a complex world due to its adaptability to the specific factual situations and inter and transdisciplinarity due to its openness to other areas of knowledge;

4) Means to explain the very reason for existence of a particular legal norm.

The importance of the Economic Analysis of Law lies in the application of economic theories to legal science, with the purpose of granting security, predictability and efficiency the norms of Law, faced with a basic need for harmonization and positivation, especially on the economic prism and minimum state intervention in private relations.[8]

5 THE ECONOMICS AND INTELLECTUAL PROPERTY IN THE COMMON LAW SYSTEM

A review of the IP literature emanating from economics scholars shows IP in a distinct light, as a variable of economic growth, within a given economy. Thus, from an economist's perspective, a good IP model should contribute to the growth of an economy. Furthermore, these scholars debate the way in which IP law could and should be transformed to improve economic growth. Such debates are typically based on two main justifications, firstly, it is argued that IP law should foster development and innovation (BOLDRIN et al. 2002), secondly it is also argued that innovations result in direct economic growth (BESEN et al. 1991). Therefore, the key premise of the economic theory rests on the view that a good IP system should foster innovations, which in turn lead to a higher rate of economic growth (GOULD et al. 1996, EICHE et al. 2008 and DINOPOULOS et al. 2010).

Typically, economics scholars rely on mathematical models to explain the potential effects of a given IP policy on the economy. Furthermore, these scholars also use such models to make assumptions as to the cost of a given innovation, its value and/or for how long it should be protected. By doing so, economists have reached conclusions regarding various aspects of IP, for example: i) IPR enhances the economy where R&D is high, but not when

[8] MONTEIRO, Renato Leite. Análise Econômica do Direito: Uma Visão Didática. Available in: http://www.publicadireito.com.br/conpedi/manaus/arquivos/anais/sao_paulo/2425.pdf - access June 10, 2018. AGUIAR, Bernardo Augusto Teixeira de. A análise econômica do direito: aspectos gerais. In: Âmbito Jurídico**,** Rio Grande, XVI, n. 110, mar 2013. Available in: <http://www.ambito-juridico.com.br/site/index.php/?n_link=revista_artigos_leitura&artigo_id=13019&revista_caderno=27> - access June 17, 2018.

R&D is at low levels (SHAVELL & YPERSELE 2001); ii) the economic benefits of copyright outweighs the detriments (BOLDRIN & LEVIN 2002) and finally, iii) under protection of IP causes greater losses to the economy than those caused by the application of strict IP laws (KWAN & LA, 2003).

Furthermore, the literature from the economics scholar's perspective relies on data from various sources and in various forms in order to reach their conclusions. Höffner (2010) relied on historical data to compare the economies of Germany and the British Empire during the eighteenth and nineteenth centuries, in order to conclude that the absence of copyright law in Germany contributed to better performance in comparison with the British Empire.

In the same vein, CORIAT & ORSI (2002) have also used historical data to explain IP law changes and their impact on the economy. Others have demonstrated a correlation between patents and GDP (GOULD & GRUBEN 1996).

The literature also demonstrates the use of logical arguments to derive conclusions about IP law from a particular stance. This is the case with one of most popular papers in this area, Heller's (1998) 'The Tragedy of the Anti-commons'. In this seminal work, Heller explains how patents in the medical area can prevent the creation of useful and cost effective products resulting in economic failure HELLER & EISENBERG (1998).

Hall (2007) also relies on a logical argument to argue that the homogeneous protection of inventions in distinct industries is counterproductive as a patent for example, can be an incentive to a business, whilst at the same time be a necessary evil to another business.

Literature overview, economic scholars on intellectual property				
#	Author(s)	Title	Method	Results

1	Helpmann, 1993	Innovation, Imitation, and Intellectual Property Rights	Quantitative/Mathematical Model	Concluded that: i) stronger IP does not result in economic growth; ii) stronger IP leads to manufacturing re-location to other jurisdictions.
2	Gould & Gruben, 1996	The Role of IPR in Economic Growth	Data on the impact of IP laws on GDP and economic growth	Concluded that: There was a limited level of correlation between growth per capita and degree of patent protection between 1960s and 1980s.
3	Ginarte and Park, 1997	Determinants of Patent Rights: A Cross-national Study	Data analysis from over 100 jurisdictions	Concluded that: Stronger IP only leads to economic growth if volume of research and development is greater than a given threshold.
4	Heller & Eisenberg, 1998	Can Patents Deter Innova-tion? The Anticommons in	Logic model	Concluded that: Biomedical patents prevents cost effective products from reaching the marketplace.

		Biomedical Research		
5	Chin and Grossman, 1988	Intellectual Property Rights and North-South Trade	Quantitative/Mathematical Model	Concluded that: IP protection improves the economy where R&D impact is high, but not when R&D results in small innovations.
6	Heller, 1998	The Tragedy of the Anticom-mons	Logic model and case studies	Concluded that: Where multiple owners have each the right to exclude the others from a limited resource, no one has the right of use.
7	Jaffe, 2000	The U.S. Patent System in Transition: Policy Innovation and the Innovation Process	Literature review	Concluded that: The literature does not result in any robust conclusion regarding the effects of IP changes and the innovative process.
8	Shavell and	Rewards Versus Intellectual Property Rights	Quantitative/Mathematical Model	Concluded that: The choice of rewards

	Ypersele, 2001			and IP is preferable to just IP rights.
9	Boldrin and Levin, 2002	The Case Against Intellectual Property	Quantitative/Mathematical Model	Concluded that: In a system where the customers contribute to the creative process, no copyright is preferable than copyright.
10	Coriat and Orsi, 2002	Establishing a New Intellectual Property Rights Regime in the United States: Origins, Content and Problems	Data analysis on one jurisdiction over a period of decades	Concluded that: i) The data demonstrates that the extension of patents to new areas leads to risks and uncertainties. ii) doubts regarding IP changes demonstrate long-term risks associated with the privatisation of essential knowledge.
11	Kwan and Lai, 2003	Intellectual Property Rights Protection and Endogenous	Quantitative/Mathematical Model	Concluded that: Under protection of IP leads to greater loses

		Economic Growth		that those related to over protection.
12	Grossman & Lai, 2004	International Protection of Intellectual Property	Quantitative/Mathematical Model	Concluded that: Full IP protection is not necessarily the optimum degree of protection.
13	Höffner, 2010	Geschichte und Wesen des Urheberrechts	Comparison of historical data from Germany and the United Kingdom	Concluded that: The particular copyright system in Germany contributed to five times higher publications than the British Empire during the 19th century.

The table above provides a summary of the most significant literature on IP from an economics perspective as well as, the methods used and the conclusions from each of the studies.

It is argued that overall, the IP literature from the economics perspective is extensive, but also, often conflicting and contradictory. For example, JAFFE (2000) points out that after an extensive literature review of IP form an economics perspective, it was very difficult to reach any significant conclusions.

CONCLUSION

The law is not rigid, on the contrary it is changeable, and must observe the social / economic transformations that grant it legitimacy.

The Economic Analysis of Law aims to provide security and predictability to the legal order, applying economic theories to legal science, especially on the economic prism of minimal intervention of the State in private relations.

This American movement of analysis of the legal order according to economic precepts undergoes numerous critics for defending the minimal intervention of the State in the relation between individuals, since it makes possible the analysis of the laws according to the individual interest in the face of the collective, which according to critics would not be in conformity with the modern view of Social State.

Despite the criticisms made by the Economic Analysis of Law, this movement has great importance for its interdisciplinarity and for seeking to provide security and predictability to the legal system, being an important way to understand legal thinking through the application of economic theory for the examination of the formation, structure and economic impact caused by Law, applied under the focus of economic efficiency.

After studying economic theories and principles, we conclude in this article that overall, the IP literature from the economics perspective is often conflicting and contradictory and it must be thoroughly modernized in order to encompass societal transformations and innovations.

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