
CODE OF ETHICS IN SCIENTIFIC PAPERS: THE PLAGIARISM ISSUE

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Abstract: In recent years, there has been a hyper production of various scientific, professional papers, books that were available in paper or electronic form. The possibility for everyone to freely publish and be the author of works of different character brings its own challenge: how to publish a work that is original and does not infringe the copyrights of another author or another aspect of the problem: how to protect possible plagiarism of your works. The paper will analyze the rights of the authors of scientific and professional works, as a type of author's work, and the conditions of copyright that apply in the Republic of North Macedonia and in comparative law, including the most important international conventions. This paper intends to show that the researches that are done in different scientific fields need to be considered from an ethical point of view, that is, the code of ethics should be an element inseparable from the researches. Ethics in scientific - research work is of great importance in the context of the relevance of information, the conclusions reached by researchers and in general, when we talk about research, we imply ethical research. Furthermore, the concept of plagiarism, one of the biggest problems in scientific-research ethics and how plagiarism can be proven, will be analyzed. At the end, the measures that have been taken by the authors for the protection of copyrights also will be analyzed. In the course of the analysis, the (un)ethical aspects of the scientific-research work, the completion of infringing other people's copyrights, will be discussed.

Keywords: copyrights, literary work, originality, plagiarism, protection.

1. INTRODUCTION

As Ernest Cassirer points out: „Science is the last step in the mental development of man and it can be considered the highest and most characteristic achievement of human culture. There is no other force in our modern world that can be compared to the force of scientific opinion. It is science that convinces us of the existence of the world“ (Cassirer, 1998). We live in a world overloaded with information, research, articles, papers. Statistics show that the number of published scientific papers have increased exponentially. The number of published scientific papers constantly increase for 8–9% in each year, in the last decade. For example, only in biomedical field in the PubMed database almost every minute are attached two new scientific papers. That means that more than 1 million papers are published on yearly bases, only in the field of biomedical science (Landhuis, 2016). We must take into consideration that „Science (L., *scientia* or *scire*, knowledge) is systematic knowledge based on facts, observations and experimentations. Based on the fields it occupies, science is divided into three main categories – abstract science, social science, and natural science.“ (Bhagat, 2018).

Regardless of whether it has been disclosed, copyright belongs to the author on the basis of his creation of the work. In situations like this a great effort is needed and it is very hard for the authors to keep their copyrights protected from further distortion, mutilation, other modification or derogation of their copyrights.

We are witnesses of various situations: when some authors publish papers that are reprinted word for word from other papers, when some author republishes papers as a brand new even if the paper has been published previously elsewhere without proper attribution to previous sources or disclosure to the editor, permission to republish, or justification; the paper is published by abusing peer review process by the reviewer; the other authors which have a contribution in the writing process or research are left out from the author list, etc. All of these conducts may be considered as an infringement of copyrights. The situations when one's copyrights are infringed could not be fully described and regulated by law because humans are very inventive and creative when they are trying to find a way to do some manipulation. On the other side there are plenty of predatory journal publications. These journals very often published articles where an academic theft is done or publication that contains data that cannot be verified. Often these journals conduct frivolous (or no) peer review and often accept and publish manuscripts without any editing or editorial oversight whatsoever (Cobey et al., 2018, p.1). The predatory journals are very convenient for publishing plagiarism or other kinds of fabrication of data. But, at the conclusion „Scientific research also aims at the review of facts, laws and theories in view of newly discovered facts, and the practical applications of such facts, laws and theories. Therefore, scientific research is the continuous search for knowledge and understanding of reality carried out through the scientific method. Its result is scientific knowledge“ (Silva, 2022).

2. DEFINITION OF COPYRIGHTS

Regardless of the fact that plenty of poems, drama, books, essays were done during ancient age, renaissance and humanism, the historic moment of development of copyrights law was many years later, in 1709 in England, when the Statute of Anna was enacted. The Statute of Anne had a very important influence on copyright legislation in other countries adopted in the next few years (Denmark in 1741, France in 1793, Belgium, Italy, Switzerland, and the Federal Copyright Act of 1790 in the United States). On international level the copyright legislation remained uncoordinated till the end of 19th century.

Among the various systems of international protection of copyrights, the oldest and the most important was established by the Berne conference in 1886 - the Berne Convention for the protection of Literary and Artistic works (United International Bureaux for The Protection of Intellectual Property, 1966). The main goal of the Berne Convention was to provide mutual recognition of copyright between nation states, contrary to the national laws which generally have a limited territorial application and protection of copyrights and also to promote the further development of international minimum standards for copyright protection.

According to article 2 (1) of Berne Convention, the expression “literary and artistic works” shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; etc. On the field of literary work translations, adaptations and other alterations of a literary work also shall be protected as original works without prejudice to the copyright in the original work. All of the members of Berne Union (179 countries till now, including and Republic of North Macedonia) had an obligation to undertake measures in accordance with their constitution to adopt this Convention and to ensure the application of the Convention. The general rule is that the duration of protection must be granted until the expiration of the 50th year after the author’s death. According to article 6 bis (1) of Berne Convention for the Protection of Literary and Artistic Works: “Independently of the author’s economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation.”

The second one and very important international act related to copyrights is the Universal Copyright Convention. This convention is an international instrument which was drawn up in 1952 under the auspices of UNESCO. The main aim of this Convention is to provide adequate and effective protection of the rights of authors and other copyright proprietors in literary, scientific and artistic works, including writings, musical, dramatic and cinematographic works, and paintings, engravings and sculpture. According to this Convention, the term of protection for works protected under this Universal Copyright Conventions shall not be less than the life of the author and twenty-five years after his death. Copyright shall include the exclusive right of the author to make, publish, and authorize the making and publication of translations of works protected under this Convention.

According to Law on copyright and related rights (adopted in 2010 and last amended in 2016), a copyright work in the Republic of North Macedonia is defined as: “an individual and intellectual creation of literature, science, the arts and other domains of creation, regardless of the type, manner and form of expression, unless otherwise provided by this Law. A copyright work shall include, in particular, a written work such as a literary work, article, essay, manual, brochure, scientific study, treatise and the like.” Regarding the duration of copyrights, the Macedonian law provides that the copyright shall subsist for the lifetime of the author and for 70 years after his death, unless otherwise provided by this Law.

The copyright belongs to the author on the basis of his creation of the work, regardless of whether it has been disclosed. These rights are exclusive (monopoly) rights of the author, which allows the author to fully exploit the protected copyright works and also to prohibit all other persons from exploiting his work. Copyright is an integral right indivisible from the copyright work, comprising exclusive personal prerogatives (moral rights), exclusive property rights (economic rights) and the other rights of the author. The main purpose of the moral rights of copyright holder is to protect his personal and intellectual relations with the work. The right of paternity and the exclusive right of authorizing are the most important moral rights of the author and a protective mechanism of plagiarism.

3. ORIGINALITY OF LITERARY WORK AND PLAGIARISM

Macedonian law on copyright and related rights, also neither Berne Convention nor Universal Copyright Convention, while determining the copyright work mention the originality of a literary work. The originality of the work is the one of the conditions „sine qua non“ that the literary work should fulfill. The originality of the copyright work is generally and worldwide accepted by jurisprudence, law practitioners and also by judicial practice as a main condition that any copyright work should fulfill. Macedonian legislators miss out the originality of the work in the definition of copyright, although the originality is the only one valuable element of the definition of copyright work.

Instead, the legislator mentions the notion of individual work. By contrast, the Serbian legislator in the Law on copyright and related rights adopted in 2009 defines the copyright works as an original, intellectual work of the author, expressed in certain form, regardless of its scientific, artistic or other value. Croatian legislator in the Law on copyright and related rights adopted in 2021, also defines the copyright works as an original, intellectual work of literature, science or arts domain that has an individual character.

The notion of originality is one of the most controversial notions of copyright work, thus neither legislator tries to define it. The theory indicates that the work i.e. the creation must represent something new, original which refers to subjective originality i.e., novelty in subjective sense (Dabovik & Pepeljugin 2012, p. 154). Some theorists consider that the creation or copyright work presents an incarnation of the author's personality. That does not mean that the copyright work should not rely on existing copyright work, but on a new creation, inspired by some existing work, and it must also content a significant change that reflect the personality of the author, so sometimes nuances are enough for the author's work to be original, and to give the readers and spectators a feeling of something new and a work never seen before (Damjanović & Marić, 2012, p.46).

An antonym of originality is plagiarism. According to Oxford University plagiarism is defined as: "presenting work or ideas from another source as your own, with or without consent of the original author, by incorporating it into your work without full acknowledgment". Merriam-Webster Dictionary defines the plagiarizing as to steal and pass off (the ideas or words of another) as one's own and use (another's production) without crediting the source. In academic writing, using someone's else words, information or ideas without proper citing, also is considered as a plagiarism.

Another issue, suitable for plagiarism, is the fact that authors have no obligation to submit their copyright works, including the literary works in any public register or to undertake another administrative procedure for registration of their copyright works. The informality in Macedonian law also in the common law system is in the same line with Berne convention provisions. In contrast, the system of formality is characteristic of the Anglo-Saxon law system, but it was abandoned in England at the beginning of the 20th century and still operates in the USA in a softened form.

The flexibility of the notion of originality is suitable for jurisprudence and judicial practices but it also makes difficulties in interpretation and application of law in certain cases. The uncertainty of the notion of originality of the work opens a gray area for the authors, their agents, representatives and law practitioners. Of course, the evaluation and assessment of the originality of an author's copyright work should be a matter of fact on a case-a-case basis.

Nowadays, Information technology tries to create an adequate mechanism to reveal plagiarism of copyright works. There are a lot of applications and computer programs whose main purpose is to recognize plagiarism. The way these computer programs are functioning is as follows: the first step is to upload a paper whose plagiarism score should be checked, after that this paper is compared with a base of papers, books, web pages etc., and the last step is receiving a report with the plagiarism score. Some well-known plagiarism detecting software are: Turnitin, iThenticate, Viper, Scribbr, PapersOwl etc. These plagiarism softwares are used very often by journal editorial boards, universities, even by the authors on their own. For the same purpose, the Ministry of Education and Science of Macedonia in 2012 promoted software for detecting a plagiarism which should be used by students, researchers and professors from Macedonian universities.

The journals very often, as the initial protective mechanism of publishing plagiarism, use some of the plagiarism detection programs. Also, authors have an obligation to sign a statement of authorship where they declare that the paper they are submitting is their original work and has not been published elsewhere. The theory and the practice have not the same attitude about the percentage of overlapping of the texts that should be considered as plagiarism. Some journals in their editorial policies are using a certain percentage of overlap as a sign of plagiarism. For example, for the Singapore Medical Journal 5% or less text similarity overlap of the text in the manuscript with text in the online literature is acceptable, while according to Publication ethics - A Guide for Submitting manuscripts to Pharmaceutical Research, the manuscripts with a similarity 20–25% will be subject to further inspection by the editorial office and the editor-in-chief.

Helgesson and Eriksson (2015, p. 97) considered that "using a certain percentage over an entire paper, as some scientific journal editors do, seems to be a shaky foundation for deciding whether or not to investigate plagiarism". Further in their paper "Plagiarism in research" they gave an interesting example, for a four-page paper a completely copied half page would render a 12.5 % rate for the entire paper. In this case this rate will potentially miss many instances of plagiarism (Helgesson, Eriksson, 2015, p.97). It is obvious that an accurate number cannot show whether one paper is plagiarism or not.

Also, there is another problem with the accuracy of these softwares that will arise while comparing papers in different languages. Even if one paper is totally translated into another language, it is difficult to recognize if the paper is plagiarism of some other paper. But that doesn't mean that the plagiarism could not be revealed. Such case

is elaborated in the paper “How to Verify Plagiarism of the Paper Written in Macedonian and Translated in Foreign Language” when professor Spiroski used a Google translate to translate the paper written in English into Macedonian, and afterwards to compare the translated paper with the original paper written in Macedonian by using three different programs for plagiarism detection.

Some authors say that these programs do not detect plagiarism, rather detect similarity index (Khan, 2011, p.255). According to Khan, a similarity index is the reflection of the total percentage of matched words that a system finds for a submission. Plagiarism checking tool Turnitin defines the similarity index or similarity score as percentage that is turned on a submission that shows how much of that material matches other materials in the database, but it is not a marker as to whether an author has or has not plagiarized. Even and the plagiarism checking tool Turnitin declares that in the similarity report may occur a similarity with other paper even if the authors used a quote or has reference properly from paper uploaded earlier. That means that the program cannot make a proper judgment without further inspection of the similarity report by the professor, editorial board or researcher who is using the help of these softwares.

In any case such software can certainly be of help in detecting potential cases of plagiarism, or may be the initial step of recognizing plagiarism. In cases of plagiarism, these overlapping reports are used as a proof in the procedure very often.

4. PROTECTION OF COPYRIGHTS

The plagiarism as a gross ethical violation is prohibited since ancient ages. The authors after revealing that their paper has been the object of plagiarism, or have been infringed have a right to protect their copyrights by using judicial protection or other measures.

When we are talking about plagiarism of scientific papers, first of all this kind of misconduct is regulated by Code of Ethics of Universities, Institutes or other research institutions. General summary of some ethical principles that various codes address is: Honesty, Objectivity, Integrity, Carefulness, Openness, Respect for Intellectual Property, Confidentiality, Responsible Publication, Responsible Mentoring, Respect for colleagues, Social Responsibility, Non-Discrimination, Competence, Legality, Animal Care, Human Subjects Protection (Shamoo & Resnik, 2009).

Plagiarism is most severely condemned by the Macedonian state universities in their Code of ethics (art. 20 of Code of Ethics, University St. Cyril and Methodius-Skopje, art. 18 of Code of Ethics, University Goce Delchev-Shtip, Code of Ethics, University St. Clement Ohridski-Bitola etc.). As a punishment for plagiarism depending on the severity of the offense, the offending researcher may be fired, may even have their funding revoked, or may receive a public warning. When plagiarism is done by students the severest punishment is suspension or exclusion from the university.

Further, the paper or papers containing the fabricated data (or plagiarism -i.e.) would certainly be retracted so that nobody else falls victim to this crime on science, and significant embarrassment befalls the journal, the researchers, and the associated university or company (D’Angelo, 2012 p.36). On the scene of publication ethics, a very important influence has the Committee on publication Ethics, whose main aim is to move the publishing culture toward where ethical practices will become a normal part of the culture itself. Members of COPE are publishers, universities, research institutes from all academic fields and from every part of the World. Among 14068 members, unfortunately, only one publisher comes from the Republic of North Macedonia (see more on [Search results for "COPE: Committee on Publication Ethics"](#)). One of the most important Guidelines adopted by COPE Council is the COPE Retraction Guidelines (COPE Council, 2019, p.2). The main purpose of retraction is to correct the literature and ensure its integrity rather than to punish the authors (Ibid, p.3). According to the Guidelines the retraction may be used for a lot of researching publication situations when an article is published in an unethical way, among which central place takes the plagiarism.

Regardless of the punishment regulated with the Code of Ethics or retraction of the paper, the authors of plagiarized papers have an opportunity to initiate a judicial protection against the author/s of plagiarism. According to the article 166 of the Macedonian Law on Copyrights and Related Rights, when the rights under this Law have been infringed, the right holder may require: termination of the action of injury; compensation for material damage; compensation for non-material damage; punitive damage; designation of the author; return of the benefits acquired from unauthorized use; removal from the market of the object of the violation of the right and public publication of the court judgment. Punitive damage is a new legal institute adopted by all WTO members. In the Republic of North Macedonia if the right violation is done intentionally or by gross negligence, the damaged person has a right to compensation in the amount of the usual compensation increased by 200%. The punitive character of this institute has a purpose to punish the perpetrator and to teach them that the violation of the industrial property rights (i.e. copyrights) is not worth it (Mateska, 2017, p.11).

5. CONCLUSION

In the world of exponentially increasing number of published scientific papers, which are available in every possible form, it is very hard to preserve the authors' copyrights. Regardless of whether it has been disclosed, copyright shall belong to the author on the basis of his creation of the work and regardless of its scientific, artistic or other value. We are witnesses of a lot of cases when a distortion, mutilation, other modification or derogation of authors copyrights is made. One of the grossest ethical injuries in academic fields is plagiarism. The most widely accepted is the definition of plagiarism where plagiarism is defined as presenting work or ideas from another source as your own, with or without consent of the original author, by incorporating it into your work without full acknowledgment. By publishing plagiarism, the most important element of the copyright work - the originality of the work is not respected.

Journals, publishers, universities etc. are constantly trying to find a qualitative mechanism which will make the fight against counterfeiter or academic thieves easier. For that purpose, they use a different program for detecting plagiarism that may be an initial step for detecting plagiarism. Also, they obliged the authors to sign a statement of authorship, and in plagiarism cases they use a retraction procedure. Regardless of that, the authors of plagiarized papers may use the appropriate judicial protection.

The Republic of North Macedonia has a solid legal frame dedicated to copyrights and related rights, but there is a big grey area that should be filled with a better regulation of academics Code of Ethics, their proper implementation, and accepting the publishing culture and ethical practices from all related parties in publishing procedure as a normal part of the culture itself.

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