Legal and ethical rules of plagiarism

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Abstract
Plagiarism has always been a problem in the university environment as well. There is no legal definition of plagiary, plagiarism or self-plagiarism in the national, supranational (EU) law or international agreements. The definition of plagiarism and self-plagiarism should be clear for academic staff and university students as well. We can conclude that the whole academic society agrees that plagiarism is a serious problem. The paper identifies the legal framework of plagiarism in the Slovak and EU law, the forms of plagiarism behind the legal framework and the problems arising from the use of artificial intelligence (AI) and proposes solutions for how to fight against plagiarism in the academic environment. The Slovak declaration confirms the fact that existing legal regulations do not reflect the whole gamut of possible instances and circumstances of unscientific, unethical, and dishonest conduct. It seems to be necessary to prepare a directive in the EU law as a repressive measure to define which research conducts is not acceptable, including the AI considered often as a new form of plagiarism. As well as the training courses for teachers and students focused on plagiarism, including the AI and the possibilities for using it in academic research would be a preventive measure for avoiding plagiarism and self-plagiarism.

Keywords: plagiarism, self-plagiarism, author’s work, quotation ethical codes, legal rules.

JEL Classification: K42

DOI: 10.24818/TBJ/2023/13/4.08

1. Introduction
Plagiarism is a serious problem in university environment including Slovak universities. Academic dishonesty caused by plagiarism is even more discussed at meetings of internal bodies of universities, but also in the media. University ethics committees are burdened with a lot of plagiarism agenda. Plagiarism has always been a problem in the university environment as well. Plagiarism is not a new phenomenon only the ways how to plagiarize are changing. The rapid development of information technologies enables to develop of digital forms of plagiarism which surpassed the rate of conventional plagiarism.1 To detect plagiarism there

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are many technological solutions that enable to check the content of documents for their originality, to compare the similarities of the student’s works to other documents published on the internet. These technologies and their continuous improvement are an important tool for reducing the rate of plagiarism, but they should be accompanied by the educational intervention. Some authors believe that the most appropriate way to fight plagiarism is through pedagogy, such as offering courses on the subjects of ethics, morality and literacy. Moreover, some authors argue for an institutional approach that recognises the need for a shared responsibility between the student, staff and institution, supported by external quality agencies. From the studies mentioned above results that first of all the definition of plagiarism should be clear for academic staff and university students as well. Comprehensive and clear definition of plagiarism could help the academic community to develop plagiarism prevention.

The notions of “plagiary” or “plagiarism” are defined in the works of many authors from around the world, e.g. “copying (or using) of others’ work that (accidently or otherwise) deceives a third party about the authorship (or ownership) of the work;” “a form of academic malpractice and frames it as a breach of academic integrity;” “passing off someone else’s work, whether intentionally or unintentionally, as your own for your own benefit;” “it is taking the words, ideas and labour of other people and giving the impression that they are your own;” “an act of submitting a document that belongs partially or completely to somebody else.

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without due reference, and therefore misrepresents the effort that has been carried out by the submitting author.”

Park distinguishes four forms of plagiarism: “a) stealing material from another source and passing it off as their own; b) submitting a paper written by someone else and passing it off as their own; c) copying sections of material from one or more source text, supplying proper documentation (including the full reference) but leaving out quotation marks, thus giving the impression that the material has been paraphrased rather than directly quoted; d) paraphrasing material from one or more source texts without supplying appropriate documentation.”

However, there is no legal definition of plagiary or plagiarism in the national, supranational (EU) law or international agreements. According to the above mentioned papers we can result that the whole academic society agree that plagiarism is a serious problem; however each has its own definition of plagiary and plagiarism. Nowadays, it is more important due to the development of artificial intelligence (AI) which is able to prepare essays or assignments instead of students on a high level without fear of being detected by the technological anti-plagiarism tools. Of course, plagiarism is not problem only for academic environment. There are many plagiarisms in all economic sectors; however in our paper, we focus only on plagiarism in the academic world. The paper tries first, to identify the legal framework of plagiarism in the Slovak and EU law; second, to identify the forms of plagiarism behind the legal framework but within the ethical framework in the ethical codes and work of authors who are dealing with this issue; and third, to identify the problems arising from the use of artificial intelligence (AI), to propose what attitude to take towards AI and to propose the solution how to fight against plagiarism in the academic environment.

2. Plagiarism in the legal framework of Slovak and EU law

Intellectual properties including the literary and artistic works were already created by ancient civilizations. Nevertheless, the law of ancient world did not pay attention to the protection of these intangible assets. Even the Roman Empire left no mention of the legal protection of intangible goods. Roman law did not lay the base for intellectual property law, despite many complaints from authors whose works were misappropriated by others. But it is from this period that we have preserved the term plagiarism, derived from the word “plagium,” which can be freely translated as “stealing people.”

The first copyright law, the statute of Queen Anne of England, entered into force on April 10, 1710, in England and Wales and Scotland. The statute protected

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authors' rights for a period of 14 years and established sanctions for copyright infringement.\textsuperscript{16} It was repealed by Copyright Act 1842. The first international agreement, the Berne Convention for the Protection of Literary and Artistic Works, was adopted only in 1886. However, there is no mention of plagiarism or plagiarism in any of the mentioned legal regulations. This situation has not been changed up to now in the international law of copyright. Moreover, the concept of plagiarism is not even mentioned in the European copyright directives or other legal regulations. At last, plagiarism is not defined in any Slovak legal acts (such as Copyright Code or Act on the universities) or included in any general code (such as Criminal Code, Civil Code or in administrative acts).

2.1 Scope of the copyright protection - term of author's work

The Slovak Copyright code regulates the relations that arise in connection with the creation and use of an author's work or artistic performance, in connection with the production and use of a sound recording, audiovisual recording or broadcast, and in connection with the creation or production and use of a computer program or database in such a way that the rights and legitimate interests of the author, performing artist, sound recording producer, audiovisual recording producer, radio broadcaster and television broadcaster, periodical publisher, computer program author, database author and database contractor are protected.\textsuperscript{17} This implies the need to define an author’s work which is covered by copyright protection. According to the Slovak Copyright Act, there is protected any author's work in the field of literature, art or science, which is original result of the author's creative intellectual activity perceptible to the senses, regardless of its form, content, quality, and purpose, form of expression or degree of completion.\textsuperscript{18} However, an idea, procedure, system, method, concept, principle, discovery, or information that has been expressed, described, explained, illustrated, or incorporated into a work is not considered to be the subject of copyright.\textsuperscript{19} And here is the first difference between the term “author’s work,” which is protected by copyright law, and the term “plagiarism,” which also includes the theft of someone else's ideas. The idea itself is not protected by copyright law. It is not only a trend of Slovak law but also a trend of other copyright acts\textsuperscript{20} or even the international treaties (e.g. Copyright protection extends to expressions and not to ideas, procedures, and methods of operation or mathematical concepts as such.\textsuperscript{21}). Moreover, according to the Slovak law the copyright does not cover 1) the text of a

\textsuperscript{16} The Statute of Anne; April 10, 1710; 8 Anne, c. 19 (1710). “An act for the encouragement of learning, by vesting the copies of printed books in the authors or purchasers of such copies, during the times therein mentioned,” Yale University, accessed May 10, 2023, https://avalon.law.yale.edu/18th_century/anne_1710.asp.
\textsuperscript{17} §1 of the Slovak Copyright Act no. 185/2015 Coll.
\textsuperscript{18} § 3 of the Slovak Copyright Act no. 185/2015 Coll.
\textsuperscript{19} § 5 (a) of the Slovak Copyright Act no. 185/2015 Coll.
\textsuperscript{20} E.g. 17 U. S. Code § 102
\textsuperscript{21} E.g. article 2 of WIPO Copyright Treaty (WCT)
legal regulation, an official decision or a court decision, a technical standard, as well as the preparatory documentation created together with them and their translation, regardless of whether they meet the conditions of term “author’s work, 2) spatial planning documentation, regardless of whether it meets the conditions of term author’s work, 3) state symbol, village symbol, self-governing region symbol; this does not apply if it is a work that is the basis for the creation of a symbol, 4) a speech delivered during the discussion of public affairs, regardless of whether it meets the conditions of term “author’s work, 4) daily report; 5) a work of traditional folk culture, 6) the result of the activity of an expert, interpreter or translator according to a special regulation.22

EU law regulates many issues of copyright by its directives; however, it does not contain a definition of an author’s work in general or a list of objects excluded from copyright protection. In the EU law and its judgments, there were only special definitions of some author’s work, such as computer programs, databases or photographs. Similarly, under Articles 1(3) of Directive 91/250 (nowadays – directive 2009/24/EC), 3(1) of Directive 96/9 and 6 of Directive 2006/116, works such as computer programs, databases or photographs are protected by copyright only if they are original in the sense that they are their author’s own intellectual creation.23 And a photograph can be protected by copyright if such photograph is an intellectual creation of the author reflecting his personality and expressing his free and creative choices in the production of that photograph.24 Only later in 2018, the Court of the Justice of the EU stated that two cumulative conditions must be satisfied for subject matter to be classified as a ‘work’ within the meaning of Directive 2001/29.25 First, the subject matter concerned must be original in the sense that it is the author’s own intellectual creation and secondly, only something which is the expression of the author’s own intellectual creation may be classified as a ‘work’ within the meaning of Directive 2001/29.26 Moreover, the Court of the Justice of the EU added that in order to establish whether the product concerned falls within the scope of copyright protection, it is for the referring court to determine whether, through that choice of the shape of the product, its author has expressed his creative ability in an original manner by making free and creative choices and has designed the product in such a way that it reflects his personality.27

According to international agreements it is the expression and not the idea, procedure, method that may be the subject of copyright.28 Therefore the Court of

22 § 5 b) – h) of the Slovak Copyright Act no. 185/2015 Coll.; (notion - letter a) is cited above).
23 Judgment of the ECJ, July 16, 2009; C-508/08 Infopaq International A/S v. Danske Dagblades Forening, point 37.
24 Judgment of the ECJ, December 1, 2011; C- 145/10 Eva-Maria Painer v. Standard Verlags GmbH and others.
25 Judgment of the ECJ, November 13, 2018; C-310/17 Levola Hengelo BV v. Smilde Foods BV, points 35.
27 Judgment of the ECJ, June 11, 2020; C-833/18 SI a Brompton Bicycle Ltd. v. Chedech/Get2Get, point 34.
28 Article 2 of WIPO Copyright Treaty (WCT); article 9 (2) of Agreement on Trade–Related Aspects
the Justice of the EU stated that a work must necessarily be expressed in a manner which makes it identifiable with sufficient precision and objectivity, even though that expression is not necessarily in permanent form.29 It follows from the above that copyright law at the national, supranational or international level does not protect the mere ideas of an author, in contrast to various definitions of plagiarism in the ethical codes of institutions or scientific papers and monographs of authors.

2.2 Scope of the copyright protection – use of author’s work

We can and must even use other authors’ works in the academic environment. Legal and ethical rules respect this fact. But even in this case, the ethical rules of plagiarism are stricter than the legal ones. According to the legal rules, we may use the works of other authors based on their permission, usually granted by a license agreement. In some specific cases, the law gives permission to use the work and the author’s permission is not required. It is about the so-called statutory licenses or exceptions and limitations of the author’s property rights to his/her own work.

One of these exceptions and limitations is quotations which is the most frequently used exception in the academic world and the one of the oldest exceptions of copyright law. Moreover, the rules of quotations applied for the purpose of freedom of speech and the right to information.30 According to the article 5(3d) of the directive 2001/29/EC31 quotations for purposes such as criticism or review, provided that they relate to a work or other subject-matter which has already been lawfully made available to the public, that, unless this turns out to be impossible, the source, including the author’s name, is indicated, and that their use is in accordance with fair practice, and to the extent required by the specific purpose. This rule was transposed into the Slovak Copyright Code as one of the exceptions and limitations as follows: A person who, without the author’s permission, uses a published work or a part of it in the form of a quotation, especially for the purpose of review or critiques this work, does not break copyright. The use of a work or a part of a work according to first sentence must be in accordance with customs and its scope must not exceed the framework justified by the purpose of the quotation.32

In both cases (EU directive and Slovak law) the quotation applies only to the published works or work lawfully available to the public. According to the Slovak Copyright Act the work is published on the date on which it was first lawfully used by public performance, public exposure, publication or public

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29 Judgment of the ECJ, November 13, 2018; C-310/17 Levola Hengelo BV v. Smilde Foods BV, point 40.
30 From the explanatory report to Act No. 185/2015 Coll. (Slovak Copyright Act).
32 § 37 of the Act No. 185/2015 Coll. (Slovak Copyright Act).
transmission, or otherwise first lawfully published.\textsuperscript{33} The Court of Justice of the EU added that a work has already been lawfully made available to the public where that work, in its specific form, was previously made available to the public with the right holder’s authorization or in accordance with a non-contractual licence or statutory authorisation.\textsuperscript{34} Therefore, the works which were not lawfully available to the public could be quoted only by the author’s permission (e.g. unpublished manuscript or unlawfully published paper, if it was published but without author’s permission).

The quotation is not limited only for the verbal works but includes also the works of art, musical works, audiovisual works or databases.\textsuperscript{35}

Moreover, when quoting a work, the author’s name is indicated, if it is not an anonymous work, the title of the work and the source. It is also an essential requirement to avoid plagiarism. The Court of Justice of the EU added that application of article 5(3)(d) of Directive 2001/29 is subject to the obligation to indicate the source, including the name of the author or performer, of the work or other protected subject-matter quoted. However, if, in applying Article 5(3)(e) of Directive 2001/29, that name was not indicated, that obligation must be regarded as having been fulfilled if the source alone is indicated.\textsuperscript{36}

Neither the EU directive nor the Slovak law solves the question of how to quote exactly. Moreover, the Court of the Justice of the EU added that neither the wording of Article 5(3)(d) of Directive 2001/29 nor the concept of ‘quotation’,\textsuperscript{37} require that the quoted work be inextricably integrated, by way of insertions or reproductions in footnotes for example, into the subject matter citing it, so that a quotation may thus be made by including a hyperlink to the quoted work. In some cases, it is difficult to indicate the source and other relevant references in the work, e.g. in the musical or audiovisual works. This can be done, for example, in the description of the quoting work, or even in its title.\textsuperscript{38}

The quotation should be in accordance with fair practice (EU directive), must be in accordance with customs (Slovak law). Customs can be understood as certain rules of behavior (including the ethical rules against plagiarism) typical for a certain sphere of social life (e.g. academic life). For example, there is Slovak technical rule ISO 690 which determines the methods and conditions of quotation in Slovakia. It is not legally binding and therefore, irrelevant from the point of view of copyright protection, unless it is considered as part of the customs to which the copyright law refers.

Moreover, the above mentioned legal rules do not prescribe to quote the

\textsuperscript{33} § 6 of the Act No. 185/2015 Coll. (Slovak Copyright Act).
\textsuperscript{34} Judgment of the ECJ, July 29, 2019; C- 516/17 Spiegel Online GmbH v. Volker Beck.
\textsuperscript{35} Judgment of the ECJ, July 29, 2019; C- 476/17 Pelham GmbH a i. v. Ralf Hütter a Florian Schneider-Esleben, point 68.
\textsuperscript{36} Judgment of the ECJ, December 1, 2011; C- 145/10 Eva-Maria Painer v. Standard Verlags GmbH and others.
\textsuperscript{37} Judgment of the ECJ, July 29, 2019; C- 516/17 Spiegel Online GmbH v. Volker Beck, point 78 and 79.
\textsuperscript{38} Opinion of Advocate General, December 12, 2018; C-476/17 Pelham GmbH a i. v. Ralf Hütter a Florian Schneider-Esleben, point 68.
work with quotation marks explicitly; however Park states that plagiarism is also “the presentation of copied parts from works done by other people in one’s own work with references to the source, but without quotation marks, making an impression that a work was paraphrased by the author.”39 If the quotation marks are considered as a custom in an academic life, their use is obligatory in such cases regardless of whether it is explicitly given in the law. The reference of law to the customs or fair practice erases the lines between legal and ethical rules.

According to the Slovak law, quotation means not only a verbatim quotation, but also the use of a changed (e.g. translated) work.40 The processing of a work, including its translation, is one of the ways of using a work for which the author of the original work to be processed must give his permission. If we were to write an article in one language and the work we want to quote is in another language, we would have to request the author's permission of the work we want to quote. The purpose of quotation as an exception to copyright is to ensure authors the possibility to use a work without this permission of its author and thus without requiring his permission for every quoted work. If the quotation exception did not also apply to the translation of the work or its part for the purposes of quotation, the granted exception would lose its meaning in many cases. Therefore, the rules of quotation must be respected even in relation to the text that was created by translating a work or part of it from another language.

In addition to respecting the requirements of the quotation in accordance with customs or fair practices, the rules of quotation contain other conditions that must be met so that the quotation in the work is in accordance with the law without the need of author’s permission to the quoted works.

The law allows the use of a published work or part of it for the purpose of quotation. It is possible to quote not only a short part of the work, as allowed by the previous Slovak copyright law, but also the entire work. This rule eliminated the problem of how to quote an entire work, for example, a picture, a photo, a slogan, a poem or a short story. According to the current legislation, it is possible to quote both different excerpted parts of published works (e.g. for the purpose of ascertaining the current state of knowledge when writing a new work) and, on the other hand, the entire published work (e.g. the author quotes the entire work for the purposes of review or critique for a photo or short poem that cannot be quoted only in part).

However, the Slovak Copyright Code does not distinguish in detail for what purpose it is possible to quote the entire work and for what purpose only its part. Therefore, it will be necessary to assess a specific case in terms of the prohibition a contradiction with the normal use of the work for the purposes of quotation and also in terms of prohibition going beyond the scope justified by the purpose of the quotation. The law (EU and Slovak law as well) addresses the purpose of quotation only exemplarily, namely the purpose of review and critique.

The words ‘such as’ in the article 5(3)(d) of the directive 2001/29/EC indicates that it is not an enumerative list of the purposes. The quotation is usually used in other works, especially in scientific ones for the purposes of illustrating an assertion, of defending an opinion or of allowing an intellectual comparison between that work and the assertions of that user, but quotation of the work in other cases is not excluded (e.g. for the purposes of education). The quotation of work is possible also in other materials that are not classified as an author's work (e.g. judgments, administration decisions, and expert opinions). According to the Court of Justice of the EU article 5(3)(d) of Directive 2001/29, read in the light of Article 5(5) of that directive, must be interpreted as not precluding its application where a press report quoting a work or other protected subject-matter is not a literary work protected by copyright. However, only the quotation alone cannot stand without something else, especially not without the author's prior permission, which in this case the author would have to give. It would not be a quotation of the work as an exception of the copyright, but the use of work where the permission of author is necessary. The wording of the article 5(3)(d) of the directive 2001/29/EC clearly indicates that the quotation must enter into some kind of dialogue with the work quoted.

The last condition is the scope of the quotation, which must not exceed the framework justified by the purpose of this quotation. The scope of the quotation always depends on the circumstances of the specific case, but the legal condition for quotation will not be fulfilled if the entire work in which the quotation is used was formed only by this quotation, or the quotation would constitute its essential part (e.g. it would not be a quotation if the lecture consisted only of quotation of selected works). Although the law does not explicitly state that the quotation of a work must not represent only taking the work out of context without connection to the whole or even that the content and meaning of the quoted part of the work must not be changed; however, this prohibition results from the personal rights of the author, which must not be affected by the quotation. In other words, even quotation of a work may not interfere with the author’s right to the unaltered of the work by changing the content or meaning of the extracted part of the work. According to the opinion of General Advocate the condition for the lawfulness of a quotation is first, the quotation must enter into some kind of dialogue with the work quoted; or other words the interaction between the quoting work and the quoted work is necessary; secondly, the unaltered and distinguishable character of the quotation; it means the incorporation of the quoted extract into the quoting work as it is, or in any event without distortion, and in such a way that it is easily

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41 Judgment of the ECJ, July 29, 2019; C- 516/17 Spiegel Online GmbH v. Volker Beck, point 78.
42 Judgment of the ECJ, December 1, 2011; C- 145/10 Eva-Maria Painer v. Standard Verlags GmbH and others.
43 Opinion of Advocate General, December 12, 2018; C- 476/17, Pelham GmbH a i. v. Ralf Hätter a Florian Schneider-Esleben, point 63.
44 Ibid, point 63.
46 Opinion of Advocate General, December 12, 2018; C-476/17, Pelham GmbH a i. v. Ralf Hätter a Florian Schneider-Esleben, point 65.
possible to distinguish the quotation as an extraneous element; and thirdly, to indicate the source, including the author’s name, unless it is not possible. To distinguish between quotation and plagiarism, the first two conditions referred to above make it possible.

Despite the fact that many rules can be at least implicitly derived from the legal norms of copyright law, there are still some rules within the framework of plagiarism that copyright law does not include under the legal framework.

3. Plagiarism in the ethical framework of an academic environment

Copyright law applies the use of a quotation only to a work protected by copyright; the provisions on citation do not apply to subjects that are not protected, e.g. an idea or information that has been expressed, described, or incorporated into a work and others subjects. However, in order to prevent plagiarism, it is necessary that these subjects (e.g. legal regulations, court judgments, etc.) are cited under the same conditions as the author’s works. Thus, plagiarism is a broader term than copyright protection. However, plagiarism is not yet defined in legal regulations, therefore actions that can be defined as plagiarism and that exceed the limits of legal regulation cannot be enforced by the state. These are moral (ethical) rules that can only be enforced by moral condemnation of such actions by society, or professional public. These rules, which go beyond the limits of copyright legislation, can be found in the ethical codes of universities (or other institutions) and in the works of experts dealing with issues of ethics and plagiarism. According to Kolin “ethical writing is clear, accurate, fair, and honest.” On the similar principles, the good research practices are based. The European Code of Conduct for Research Integrity focuses on reliability, honesty, and respect and research accountability.

3.1 Plagiarism in the ethical codes

According to the European Code of Conduct for Research Integrity plagiarism is defined as “using other people’s work and ideas without giving proper credit to the original source, thus violating the rights of the original author(s) to their intellectual outputs.” This code distinguishes plagiarism from

47 Judgment of the General Court, September 7, 2022; T-470/20, DD v. European Union Agency for Fundamental Rights (FRA), point 60.
48 Opinion of Advocate General, December 12, 2018; C-476/17, Pelham GmbH a i. v. Ralf Hütter a Florian Schneider-Esleben, point 68.
49 Ibid, point 66.
50 See footnotes no. 16 and 19.
52 ALLEA. 2017. European Code of Conduct for Research Integrity. Berlin: ALLEA, 1 ed., 20 p. ISBN 978-3-00-055767-5. (This document is developed in 2011 by All European Academies (ALLEA) and the European Science Foundation and is renewed every three – five years).
other research misconducts such as fabrication ("making up results and recording them as if they were real"\textsuperscript{53}), falsification ("manipulating research materials, equipment or processes or changing, omitting or suppressing data or results without justification"\textsuperscript{54}), self-plagiarism ("re-publishing substantive parts of one’s own earlier publications, including translations, without duly acknowledging or citing the original"\textsuperscript{55}) or other practices of research misconduct such as "manipulating authorship; citing selectively to enhance own findings or to please editors, reviewers or colleagues; expanding unnecessarily the bibliography of a study; misrepresenting research achievements etc."\textsuperscript{56}

This document was a keystone for Declaration on Fostering the Culture of Scientific integrity in Slovakia. The aim of this Declaration “is to encourage all organizations involved in the administration and funding of research and education in Slovakia to voluntarily commit to observing the highest ethical standards of scientific integrity, with the intention of strengthening the ethical aspect of scientific activity (…).”\textsuperscript{57} The declaration is associated with the rules of the above mentioned European code and prefers the preventive anti-plagiarism measures, “especially by means of discussion, education, supervision, guidance, and leadership by example, as well as by cultivating a positive and stimulating research environment.”\textsuperscript{58}

Until the adoption of this declaration in Slovakia, the ethical standards were addressed only in the ethical codex of individual institutions, which differed significantly among them. This declaration tries to harmonize the ethical codes of all institutions that have adopted it. The result is that the definition of plagiarism and other research misconducts are defined in all ethical codes of institutions in the same way based on the European Code of Conduct for Research Integrity. Moreover, the ethical codes of institutions set the rules for composition of ethic commissions and procedural rules for the ethics committee's decision-making. According to the Slovak declaration “it is necessary for every institution involved in research and education to have a ‘manual’ detailing the procedure for the investigation of violations of the principles of scientific integrity.”\textsuperscript{59}

Failure to comply with the ethical code of an institution and the National Code of Ethics for Scientific Integrity is usually considered as a violation of work discipline. In that event, an employee is treated according to the provisions of the Labor Code in Slovakia. A work discipline is not defined in the Slovak Labour Code; however, this term is considered to compliance with all obligations that the employee has in connection with his job. This also includes respect for legal

\textsuperscript{53} ALLEA. 2017.
\textsuperscript{54} ALLEA. 2017.
\textsuperscript{55} ALLEA. 2017.
\textsuperscript{56} ALLEA. 2017.
\textsuperscript{58} Slovak Centre of Scientific and Technical Information. 2021.
\textsuperscript{59} Slovak Centre of Scientific and Technical Information. 2021.
regulations, including the internal regulations of the institution in which he/she is employed. At the university, these internal regulations are usually employee codes of ethics, internal directives regarding the ethics of publishing and plagiarism, the statute and rules of procedure of the ethics committee, etc.

3.2 Plagiarism in the scientific literature

3.2.1 Plagiarism and self-plagiarism

In the scientific literature, there are many definitions of plagiarism that vary around the term copying of a work of other person to appropriate it regardless if accidently or intentionally. It is the core definition of plagiarism; however, there is considered as plagiarism also omission of quotation marks if the parts of work are copied verbatim because of making an impression of paraphrased work. This opinion exceeds the definition of quotation in the legal rules and the definition of plagiarism in the ethical rules of European Code of Conduct for Research Integrity. Devlin adds examples that are also considered to be plagiarism: (1) “buying or accepting an assignment from a past or current student (or another source) and submitting it as your own; (2) borrowing or looking at an assignment from another past or current student and using it as a model for the structure, style or content of your own assignment or copying it but making small changes (e.g. replacing a few verbs, replacing an adjective with a synonym); or cutting and pasting one or more paragraphs by using sentences of the original but leaving out a small number and putting some sentences in a different order; (3) taking verbal and/or written advice from another past or current student about what to include in an assignment.”

It means that plagiarism is not only copying but also inspiring another person’s work regardless of author’s permission and quotations of author’s work. To permit of an author to use his/her work by someone else is considered to be a type of plagiarism. It means that not only the plagiarist but also the people who permit or accept the plagiarism are responsible for it. In addition, plagiarism is also “presentation of group work as a student’s own or duplication of the identical work for more courses.”

Another issue is a self-plagiarism. There is no clear and proper definition what does self-plagiarism mean. Moreover, it is a clear ethical issue because according to the law the author of a work cannot unlawfully takeover his/her own work unless a license agreement prevents from doing so. The original term of self-plagiarism means that an author used his/her own work at least twice, i.e. he/she published the identical work in two or more different journals at the same time or later. More complicated issue arises when an author revised his/her previous published work. What share of our previous works could we use for preparation of a new study to make it in harmony to the ethical issues of self-plagiarism? There are more opinions for it. Bretag and Mahmud argue that the fact that 50% of the

paper has already been published requires at the very least some form of acknowledgment but they added that 50% is a high proportion because the author has a possibility to add a new literature references or rewrite more precise methodology and therefore they ask for determination an acceptable percentage of textual reuse. According to Ireland “the new manuscript must (1) address modified or new research questions, (2) use new theoretical arguments, and (3) use additional or new data to test the proposed relationships.” Bretag and Carapiet accepted for their study 10% of any one of the author’s previous publications without appropriate attribution based on the Australian Copyright Act which permits copying a reasonable portion of works for specific purposes and “the reasonable portion is defined as 10% of one chapter of a book or one article from any one issue of a magazine.”

Self-plagiarism is also a partitioning a larger study into smaller published studies called salami slice. The problem consists in the fact that readers believe “that data presented in each salami slice (i.e., journal article) are independently derived from a different data collection effort or subject sample.” Therefore if necessary to divide a study into more pieces, the paper should include information on other papers that may be part of this paper.

Other types of self-plagiarism are reanalysis of the same data or different conclusions from the same data; however it is a self-plagiarism only in the case if there is no mention on the context with the previous published study.

The most usual self-plagiarism is provided due to participation on the conference. There is a question what to do with the paper presented on the conference, published in the conference proceeding and asked for publishing in a journal. Is it also self-plagiarism in spite of fact that the paper was corrected according to the questions and notices of the public during the presentation of the paper? The both publication are correct only if the author acknowledges in the paper sent to a journal that the paper was presented on a conference and published in a conference proceeding. In such case the readers know that the both publication are similar and may expect that the paper published in the journal is more precise because of correction based on the reaction of the public during the conference. In addition, it would be polite to acknowledge in a paper sent to a journal that the paper was presented on a conference also when has never been published in a

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conference proceedings. Jones et al. indicated “that there is still much work to be undertaken to identify exactly what constitutes unacceptable academic practices.”

### 3.2.2 Plagiarism and artificial intelligence

It is necessary to mention a new phenomenon - artificial inelegance or in a shortcut “AI”. It causes worries that students may use it to produce their written assignments, without being detected by plagiarism detectors. There are three types of plagiarism (verbatim, paraphrase, and idea) among text generated by AI. Khalil and Er proposed that plagiarism detection may need to shift its focus from similarity check to verifying the origin of content. They proposed revision of the process of plagiarism-detection that should include a two-step approach: (1) verifying the origin of the content and (2) a similarity check.

Many authors refuse the absolute ban on the use of AI in the academic environment, e.g. Anders proposes to add the definition of cheating that should include also “the use of advanced original text creation AI when it is specifically not allowed by the instructor for a given assignment;” García-Peñalvo stated that “ignoring or prohibiting applications like ChatGPT does not seem to be the way forward;” and McMurtrie argued that it more will become an essential part of the writing process.

The AI is a new reality which is necessary not only to accept but also to use meaningfully for research. However, new skills must be developed, such as the “ability to use AI and harness its power and critical thinking regarding AI content, i.e. method used to create the result; sources used to create the result; and biases that might exist within the system.” It is necessary to train students to use ethics and critical thinking and to train teacher to ask the students demonstrates their

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73 Ibid.
ability to go beyond that AI-produced writing and produce new knowledge.\textsuperscript{78}

In addition, the writers should understand the problem being solved, because otherwise they are not able to reveal the imperfections of the AI. Some authors warned that “ChatGPT may occasionally generate incorrect or misleading information, harmful instructions or biased content.”\textsuperscript{79} Therefore if the work is just taken from the AI, without the added value of the author, the probability of incorrectness and misleading information is increasing. On the one hand, AI saves time for searching literary and information sources, but on the other hand, only a human being with some knowledge in the particular field of study is able to assess their relevance for research. The teachers should recommend to students use AI only when they are able to assess - based on their knowledge, skills and experiences - the relevance and value of information provided by AI. Therefore, we agree with Halaweh that a training to utilize the AI properly (such as education on AI functions, evaluation accuracy and information, tracking queries, distinction between text generation and idea generation)\textsuperscript{80} is useful for students and teacher as well. The training courses for teachers and students focused on plagiarism including the AI and the possibilities how to use in academic research will be a preventive measure how to avoid plagiarism and self-plagiarism. Moreover, it would be a first step to be able to rewrite definition of plagiarism after the development of AI technologies.

4. Conclusion

Many researchers argue that the term plagiarism is understood by different ways not only at the international level but also at the same university;\textsuperscript{81} therefore the clear policies on plagiarism are needed to prevent the plagiarism even at the international level.\textsuperscript{82} Moreover, the Slovak declaration confirms the fact that


\textsuperscript{80} Halaweh, M., op. cit., 2023, ep 421.


“existing legal regulations do not reflect the full gamut of possible instances and circumstances of unscientific, unethical, and dishonest conduct. While they serve to protect other rights, they do not safeguard the credibility of science and education and the conditions of their proper functioning.”

There are some attempts of the Court of Justice of the EU to adopt a definition of plagiarism; however, its power is limited by the scope of the case. Therefore, the definition of plagiarism in the ECJ judgments and opinion of the General advocate consists only in the differences between quotation and plagiarism.

The basic definition of plagiarism as “the act of someone who, in the artistic or literary field, gives as their own what they have taken from another’s work” has been already overcome although only this is legally enforceable. Nowadays, the plagiarism includes also other forms such as paraphrasing a foreign text, presenting a translated text as one's own text, misusing other people's ideas and other research misconducts such as fabrication and falsification. These types of plagiarism are only hardly legally enforceable. In addition, the current Copyright Law in the EU and Slovakia do not deal with the self-plagiarism. It is only ethical principle and according to the law self-plagiarism is not forbidden. Intentional simultaneous sending to two or more publishers or re-sending the same work or its substantive parts including translations without quotation of the original “recycling” or using some previous works to create a new one is only an ethical offence, unless the provisions of the license agreement are violated, which would lead to damage to the other contracting party. Many other ethical offences such as manipulating authorship, salami publications or expanding unnecessarily the bibliography are out of the scope of the Slovak or EU copyright law.

It seems to be necessary to prepare a directive in the EU law as a measure to define which research conducts are not acceptable. The basic material is included in the European Code of Conduct for Research Integrity. Moreover, the AI brings new forms of plagiarism which could be included in the EU legal rules. It is necessary to know for teacher and students how to use AI without worrying that the work will result in plagiarism.

Acknowledgment


83 Slovak Centre of Scientific and Technical Information. 2021
contract no. VEGA-1/0504/21.

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