

Scientific honesty and activating its role in scientific research

Adam Rahmoun¹, Elsaid Djekidel²

¹Higher School of Teachers Taleb Abderrahmane in Laghouat, Algeria, E-mail: a.rahmoune@ens-lagh.dz

²Research Center in Islamic Sciences and Civilization in Laghouat (CRSIC) Algeria, E-mail: s.djekidel@crsic.dz

Received: 05/2024, Published: 06/2024

Abstract:

Scientific plagiarism is considered one of the most common pitfalls that researchers and students alike fall into, and this exposes them to falling into scientific errors, whether spontaneously or intentionally. Despite many legal procedures and technical measures approved by laws and university charters, they have not been able to eliminate this phenomenon completely.

In this intervention, we attempt to address methods of combating this phenomenon, as well as to highlight and review the various legal and ethical procedures and measures adopted to confront scientific plagiarism.

Keywords: Scientific Plagiarism, Conceptual Approach, Methods, Factors of its Spread, Mechanisms for Confronting it.

Introduction:

When preparing their scientific research, students and researchers rely on several research papers and writings by other writers, and this may expose them to some research errors that vary between spontaneous errors that can be overlooked, as they are not considered scientific violations, and intentional errors that are classified under the category Practices that violate scientific integrity, which may result in administrative and legal penalties against the researcher. Whether the researcher intentionally does this or not, he is subject to accountability and prosecution for violating intellectual property rights, which are considered among the most important and sacred human rights, and this is in application of the legal principle that says: "Ignorance of the law is not excused."

Aside from scientific theft and organized plagiarism committed with premeditation and intentionality by the researcher, anyone who follows the spread of the phenomenon of scientific plagiarism in universities today notes that there are many scientific thefts that are committed without the intention of the researcher, and their cause is mainly attributed to ignorance of scientific research techniques, especially: Documentation, attribution, quoting, summarizing, paraphrasing... and other necessary skills for every researcher to avoid falling into these practices that are contrary to the literature of scientific research.

Importance and objectives of the research:

- Highlighting the importance of correct academic practices, and explaining how this contributes to reducing the spread of academic plagiarism that may occur unintentionally by researchers.
 - Introducing the ABCs and techniques of scientific research that are necessary and necessary for every student or researcher, and considering possible methods and methods that will avoid the student or researcher from falling into scientific plagiarism as much as possible.
 - Identifying the most common types of scientific plagiarism, and explaining how to distinguish between them and other forms that conform to the scientific research methodology, and which may overlap with it.
- Reviewing the various procedures and measures (legal, technical, ethical) adopted to combat plagiarism.

Research problem:

The problem of this research addresses the issue of academic and intellectual plagiarism as it is one of the most widespread practices incompatible with scientific research in university circles. Perhaps the reason for its spread and expansion among students and researchers is often due to the researcher's lack of knowledge regarding the techniques of correct scientific research and its basic techniques. On this basis, the main problem is presented as follows:

What is the reality of academic plagiarism in light of university charters and laws and the mechanisms to combat it?

From the main problem emerge the following partial problems:

- 1- What are the basic concepts related to the research topic?
- 2- What are the most common forms of plagiarism in academic circles?
- 3- What are the techniques and techniques used in scientific research?

4- What are the methods to avoid falling into plagiarism?

To achieve the requirements of this research, the following elements will be addressed:

The first section: The basic concepts of plagiarism in scientific research and the factors that help its spread.

Scientific plagiarism is one of the problems and crimes known to research institutions and international universities all over the world, as committing it leads to violating intellectual property rights and affecting the quality and efficiency of scientific research, and thus it is one of the most serious academic problems. Therefore, plagiarism must be fought in all possible ways and means, in order to preserve the objectives of scientific research and maintain its effectiveness.

From here we discuss the following:

The first requirement: clarifying some basic concepts related to the research topic.

1. Scientific theft:

Intellectual or literary plagiarism, plagiarism, and academic fraud are all different terms with the same meaning, which is violating copyright, assaulting the moral right of the author, or assaulting works.

There are many definitions that have been given regarding intellectual theft, including:

The definition provided by the Vice Presidency for Postgraduate Studies and Scientific Research at King Saud University stated that: "Plagiarism in its simplest sense is the unacknowledged use of the ideas and works of others, intentionally or unintentionally".¹

The guide of the Deanship of Evaluation and Quality at Imam Mohamed bin Saud Islamic University, within the framework of the series to support learning and teaching at the university, stated that: "Scientific plagiarism or plagiarism is a form of illegal transfer, and means taking the work of another person and claiming it to be your own work"².

Scientific plagiarism occurs in a simple way in the university environment, when the writer deliberately uses words, ideas, or information (not general information) belonging to another person, without mentioning this person or the source of these ideas or information, and attributing them to himself, whether this is done on paper or electronically³.

In general, the term plagiarism refers to a person who plagiarizes the information or ideas of others without referring to them in the references. Despite its many names, including scientific plagiarism or theft, everyone agrees that it is a criminal act, wrong behavior, and contrary to all the ethics of scientific research and social etiquette.

2. Definition of plagiarism:

Plagiarism in language means allegation; It is said that someone plagiarizes the poetry or sayings of others, meaning if he claims it as his own or claims that he wrote it. As for the terminology, it means that the poet claims the poetry of others, and attributes it to himself⁴.

The University of California, California's Plagiarism Prevention Guide has the following definition: "Plagiarism is the unacknowledged and inappropriate use of another person's ideas or wording"⁵; In a general sense, it means that a person adopts the ideas or writings of another person, and considers them his own, without indicating their source, intentionally or unintentionally.

3. Copyright:

It is one of the most prominent intellectual property rights, and Professor Younis Arab defines it as: "the legal rules established to protect intellectual creativity expressed within recognized works (literary and artistic property), or to protect the intangible elements of industrial and commercial projects (industrial property). It is generally divided into two parts: the protection of industrial and commercial rights, and literary and intellectual rights, or what is known as copyright and related rights. Or mental and intellectual rights, which are defined as: "Everything created by human thought, including inventions, literary and artistic works, and symbols and images used in commerce"⁶.

The writer Abd Erazzak Al-Sanhouri believes that mental rights include: copyright, which is termed as literary and artistic ownership, rights related to the message, which is termed as ownership of messages, and the inventor's right, which is termed as industrial property. Article 25 of this order, under the name "Paternity Right," affirms that among the moral rights granted to the author over his work is his right to respect its integrity and to object to any amendment or distortion made to it, especially if this amendment harms his interest, honor, or reputation, because the author's moral rights are not transferable, alienable, or subject to prescription, and the author cannot abandon them in accordance with the text of Articles 21 and 25 of Order 03-05 dated 07/23/2003 relating to copyright and related rights⁷.

While copyright is defined as: “that legal property that gives the author the right to attribute his intellectual product (physically expressed) to him, and guarantees him the right to exploit it for financial gain by any legitimate legal means.” Copyright includes two aspects of rights:

- A financial aspect, which includes all actions related to the financial exploitation of the work, such as selling, renting, or licensing.
- And a moral aspect, which is known as paternity right, which embodies the author’s relationship with his author, what is meant by the author’s right to attribute his work to him, and the moral rights related to personality are distinguished by two basic characteristics: they are not subject to alienation or seizure, and they are permanent rights and not temporary like financial rights, because these rights are considered among the rights related to the author’s personality, just like human rights⁸.

4. Scientific honesty:

The term scientific honesty refers to the responsibility that all members of academia must undertake (university bodies, researchers, professors and students), and the meaning of responsibility is the researcher’s obligation to refer to the original sources of information used in his research.

The writer (Sayed Al-Houari) believes that scientific honesty is a means of proving the originality and quality of the research, and through it the reader can return to the original to know the text of the speech⁹.

The guide of the Deanship of Evaluation and Quality at Imam Mohamed bin Saud Islamic University, within the framework of the series of supporting learning and teaching at the university, stated the meaning of academic honesty as follows: “Being an honest student means being responsible for the information and ideas of others, and pointing to the sources of information”. This guide added In explaining the benefits of scholarly honesty, an honest student is one who: “shows a quote or paraphrase taken from another writer, paraphrases the works of other writers in order to make it easy for the reader to understand, shows how he benefited from the work of other writers in forming his opinion, cites the works of others and refers to them as references”. It also means respecting copyright, not cheating, and not deceiving and misleading in research and results.

The concept of scientific honesty includes a number of methods and warnings, the implementation of which is considered a violation of copyright and a violation of academic integrity, which are¹⁰:

4-1. Fraud: This means compromising the integrity and accuracy of data, or falsifying it.

4-2. Deception and misleading: This means intentionally violating the rules of scientific research, and not mentioning marginalization, referrals, quotation or translation.

4-3. Infringement of intellectual property rights: This means violating the copyright of the author and appropriating his intellectual effort through plagiarism or theft.

It is worth noting that there are many terms synonymous with the concept of plagiarism, the most important of which are:

- Plagiarism;
- Literary theft;
- Academic plagiarism;
- Literary piracy;

As for the relationship of these terms to each other, it can be said that both the concept of intellectual theft and the concept of plagiarism intersect and unite in that they are a form of breach of scientific integrity and infringement of copyright, which is considered one of the most prominent forms of intellectual property rights. On the other hand, copyright is related to scientific integrity through the scientific plagiarism section, which aims to violate the rights of authors and steal their works illegally.

The second requirement: factors that help the spread of plagiarism

Talking about academic errors is not intended to talk about those spontaneous errors when preparing research, but rather it is intended to address those unethical practices that contradict the ethics of honest academic scientific research, as well as serious violations that affect copyrights, especially those acts that fall within the concept of intellectual plagiarism and plagiarism or Fraud in research results. Lack of sufficient knowledge or lack of mastery of the techniques and techniques of correct academic scientific research are among the reasons that lead students and researchers to fall into such violations.

The Scientific Honesty Controls Guide issued by the King Abd Elaaziz City for Science and Technology within the framework of the National Plan for Science, Technology and Innovation identified seven (07) types of practices that violate scientific honesty, including plagiarism and scientific theft in Article 12, which explicitly states: “It is forbidden for the researcher to Attributing to himself part or all of the work of others, or neglecting to indicate the source of any idea, whatever it may be, such that many people believe that the

information available on the Internet is an “open and public domain,” meaning that it is free and available to everyone, and this is not true, because most of the content of the Internet Protected by copyright.

In the same regard, the guide of the Deanship of Evaluation and Quality at Imam Mohamed bin Saud Islamic University, within the framework of the series of supporting learning and teaching at the university, mentioned some common examples of plagiarism, the most **important of which are:**

- Transferring information from the Internet and publishing or reusing it without referring to it with a quotation mark;
- Paraphrasing ideas or information from published or audio materials without mentioning their true source;
- Presenting ideas in the same form and order as they are presented in another source without referring to it;
- Buying a text from someone else and claiming that it was written by you;
- Using someone else's drawing, photo, or idea without proper citation.

The writer (Sayed Al-Houari) also identified in his book “A Guide for Researchers in Preparing Scientific Research” eight (08) forms of plagiarism as follows¹¹:

- Using someone else's ideas without attributing them to them.
- Adopting a style similar to that of another author in the body of the research without referring to it;
- Using someone else's style by translating words verbatim without referring to the quoted phrases;
- Incorrect documentation by omitting to mention the author's name, author's title, place of publication, publishing house, year, or country of publication.
- Dropping some words when translating phrases literally, whether this was done intentionally or unintentionally.
- Adopting the ideas and writings of some authors known for their inaccuracy, lack of scientific integrity, or bias;
- Using newspaper articles intended for partisan or populist propaganda, or writings published under conditions of war;
- Misleading the reader by including references in the reference list that were not originally used in the research.

The following are the most widespread and common forms of plagiarism:

5. Transferring or copying from the Internet:

The Internet has directly contributed to providing a huge amount of information, and has made it easy to benefit from it in various ways thanks to the features of (copying, pasting, and cutting). However, this does not mean in any way not indicating and documenting the sources of information. The Internet, like other paper sources, can document its information because it is also protected by copyright.

5-1. Writing or paraphrasing ideas or information without mentioning their source:

It is the researcher taking the ideas or information of another researcher or writer, without mentioning it in marginalization, and attributing it to himself.

5-2. Purchasing work or research from another person:

Another widespread phenomenon of scientific plagiarism is that some people with money resort to buying ready-made research and books and assigning them to themselves, or paying money to other individuals to write on their behalf. This process is called double plagiarism, because people who are paid for this work usually transfer information from several sources without documenting it.

5-3. Stealing the idea or method:

It is the use of a similar concept or opinion that does not fall within the framework of general knowledge, and includes the following:

5-4. Artistic plagiarism: Re-representing the work of another person using other media such as images, text, and video.

5-5. Plagiarism by translation: translating content into other languages and using it without referring to the original work¹².

6-The second topic: Confronting plagiarism in scientific research:

The first requirement: confronting scientific plagiarism by relying on the techniques used in scientific research:

Many students and even researchers sometimes fall into the trap of academic plagiarism unintentionally, due to their lack of mastery of correct scientific research techniques and their ignorance of its methods. This is evident through many justifications given by students, such as: (ignorance that information on the Internet is protected by copyright, inability to rephrase sentences in their own style, forgetting to put quotation marks...).

Some universities realized this early, so they allocated training courses and workshops concerned with scientific research methodology at various university stages, to teach students and researchers scientific research techniques, and to empower them with the basic competencies necessary to practice proper academic research, and at the same time, he urged them to devote scientific integrity in academic circles by working in an atmosphere of responsibility, joint cooperation, and mutual respect, as well as raising students' awareness of the concept of plagiarism and its various forms, and its negative effects on scientific research, and guiding them on how to avoid falling into violations that contradict scientific integrity.

Below we review the most important competencies that support sound academic scientific research, and that must be taught to every researcher or student at various university levels.

6-1. Documentation

The process of documentation or citation means attaching the text to its original source in a clear manner, enabling the reader to be provided with sufficient information to trace the source of each information. The University Vice Presidency for Postgraduate Studies and Scientific Research at King Saud University defined it under the title of documenting citations, "which is intended to prove the sources from which you derived your information and ideas, and documentation is usually done through a dedicated list of sources and references, or what is known as a bibliography."

As the writer (Sayed Al-Houari) emphasized by saying: "...scientific honesty is not limited to indicating the source of texts or words only, but rather it is necessary to indicate the source of every table, every figure, every statement, even every number¹³. The researcher must also avoid mentioning too many references, and adhere to mentioning only the references that he relied on in the research and not others, as Article 13 of the regulations of the Scientific Secretariat of the National Plan for Science, Technology and Innovation at the King Abd Elaaziz City for Science and Technology stipulates, under the title: "Failure to investigate accuracy in Attribution and References," the following: "The researcher should avoid exaggerating in mentioning scientific references and citing without referring to them, and avoid listing the names of references in order to give the illusion of the breadth of his scientific background in the field of his research, in order to consolidate the impression on readers or arbitrators that he is aware of the entirety of what is happening within the scope of his specialty¹⁴".

6-2. Quote (quotation):

It is also called citation, and it means that we quote information or words from other people and use them in the body of the research. It was stated in the Learning and Teaching Support Series at Imam Mohamed bin Saud University that the quote means "to use another person's words as text." Quoting is done in two ways:

6-3. Direct Quote (quotation)::

It is done by transferring information or words literally as they appeared in the original text, or by copying and pasting the original text into the text, as direct quoting requires writing the transferred phrase as it appeared in the original text, in the same word order, and without changing the context of meaning, then, it is placed in parentheses, or in two sections in the text, indicating its source carefully in the marginalization list and in the reference list, without the size of the quoted text usually exceeding 3 or 4 lines at most, and it is also known as: "copying the original text published elsewhere."

Among the most important cases that require resorting to direct quotation, we mention:

- When the original text is an aphorism or definition.
- When it is difficult for the researcher to rephrase the original text.
- If the phrases of the original text have certain connotations that cannot be interpreted¹⁵.

6-4. Indirect quote:

This is done in two ways, either by summarizing or by paraphrasing.

6-4-1. Summarizing texts (Summary):

It is done by abbreviating the phrases, words, and ideas of the original text and presenting them in the researcher's own style, without using any word or phrase used by the author of the original text. The writer (Abdul Erazzak Al-Sanhouri) referred to it by saying: "The quotation is done through a clear summary of a literary or scientific work, conveying to the reader a correct image of the original work". This is the innovation that the summary contributed to, as he added his personality to the summary, and made a significant effort. In the work he did", and it is usually resorted to in the event that rephrasing the original text or quoting it directly would lengthen the research too much, and it is also distinguished from direct quoting in that the summary also requires mentioning the source in the text directly after the summary, and then referring Refer to it in the list of references¹⁶.

6-4-2. Paraphrasing:

It is defined as: “rewriting a quote using your own words based on the original author’s basic idea.” It is therefore a repetition of the ideas and information mentioned in the original text in the researcher’s own style, without mentioning any words or phrases from the original text, taking into account maintaining the same ideas.

The most important skills and steps of paraphrasing:

- The necessity of reading the text and understanding it well, identifying the ideas contained in it;
- Rewriting the text in the researcher’s style without referring to the original text;
- Ensure that all points are covered;
- Make sure not to summarize the text.

Paraphrasing is usually resorted to to clarify some ambiguous phrases that are difficult for readers to understand in the original text. Paraphrasing has something in common with summarizing in that they both require mentioning the source in the text and referring to it in the list of references, and it differs from it in that the researcher does not adhere to conciseness or abbreviation of phrases or words when paraphrasing¹⁷.

The second requirement: confronting academic plagiarism by activating effective means to reduce the phenomenon

The mechanisms and methods for confronting academic theft and plagiarism vary between the legal measures and procedures approved by the laws regulating intellectual property rights, the laws regulating the university and scientific research, as well as the technical and technological mechanisms that are carried out by relying on digital technologies, in addition to the ethical aspect enshrined in accordance with academic custom and university charters, and common societal morals. We will review below some of the mechanisms and methods **for confronting them, as follows:**

7. Intellectual property deterrent laws as a means of legal protection:

Scientific theft, regardless of its contents and multiple methods of committing it, is considered a legally criminal act, due to its violation of a person’s intellectual rights and creative talents. However, its increase and widespread spread in recent years requires all activities in the academic community to search for solutions and mechanisms to protect the intellectual rights of researchers, and to establish academic practices that support academic integrity, Therefore, many countries have resorted to adopting several legal measures, by amending intellectual property laws to partially accommodate intellectual theft and plagiarism.

While other countries went on to introduce laws specific to plagiarism or intellectual theft, by approving what is known as the “Guideline or Academic Charter,” which explains the rights, duties, and responsibilities of all members of the academic community (students, professors, researchers), and precisely defines all practices that are inconsistent with it for scientific research, it explains the mechanisms for confronting it and the penalties prescribed for it.

As a general overview of the laws that criminalize intellectual plagiarism in Algeria, unfortunately, the Algerian legislator has not issued any special law directly criminalizing scientific plagiarism, as even the intellectual property laws, which are considered the closest branches of law specialized in this type of crime, do not explicitly address the crime of scientific theft or plagiarism, despite its criminalization of all forms of attacks on traditional and electronic works.

However, plagiarism can be included among cases of infringement on the moral rights of the author, and in this case, Article 25 of Order 03-05 relating to Copyright¹⁸, has affirmed under the name “parental right”: that among the moral rights established for the author over his work is his right to respect for its integrity, object to any amendment or distortion made to him, especially if this amendment harms his interest, honor or reputation; So that the author has the right to stipulate that the integrity of his work be respected and to object to any modification, distortion, or corruption of it if it would harm his reputation as an author, his honor, or his legitimate interests,” because the moral rights of the author are not transferable, non-alienable, or subject to prescription, and he author cannot abandon it, as Articles 42 to 53 of the same law stipulate acts that are considered legitimate acts within the framework of exploiting works, including reproduction, translation, quotation, and modification. It considered that any reproduction or exploitation of the work outside these cases constitutes an imitation, and its owner shall be punished with imprisonment and a fine in accordance with what is specified in Articles 151 to 153 of the same law.

Among the few texts that directly addressed this phenomenon in the Algerian legal system, even if in a little detail, we mention the Basic Law regarding the permanent research professor, which explicitly stipulates in Article 31 the criminalization of all acts of fraud, plagiarism, and forgery in publications, research works,

and phd theses, and classifies them within a list Professional errors of the fourth degree¹⁹. Article 31 of Executive Decree 08-131 of 05/03/2008, which includes the special basic law for permanent research professors, stipulates: “It is considered a professional error of the fourth degree if permanent research professors participate in an established practice of plagiarism, falsifying results, or cheating in scientific works in phd theses, or in any scientific publication.” These are mistakes that may lead to either dismissal or demotion to the lower level in accordance with the Public Service Law. In December 2014, the Ministry of Higher Education and Scientific Research issued the first university charter for the doctoral system (LMD) under the name “Thesis Charter”, it is considered a reference guide that specifies the rights and duties of the student, the supervising professor, the university committee, and the training support laboratory; This charter included some articles that emphasize the issue of scientific honesty, as it was mentioned under the title (Confidentiality) the following: “The necessity of the doctoral student’s commitment to respecting the ethics of scientific research, especially in the field of intellectual property of used sources (bibliography)”²⁰. In the field of penalties, this charter stipulates, under the title (Discussion), the following: “Every act related to scientific plagiarism, falsification of results, or fraud related to scientific works, declared within the framework of the thesis and proven during or after the discussion, exposes the candidate to cancellation of the discussion, or to withdraw the obtained certificate, in addition to applying the penalties stipulated in the applicable legislation and regulation.”

8. Effective and purposeful electronic software, as a technical protection mechanism

Despite the importance of legal procedures in confronting scientific theft in the academic community, their effectiveness seems minimal compared to the size and degree of expansion of this phenomenon, which continues to become more widespread day after day in a way that threatens the intellectual rights of professors and researchers. Perhaps the reason for this is primarily due to the fact that most of the laws adopted to confront scientific plagiarism in many countries are no longer compatible with the technological mechanisms used by those who commit it, which rely heavily on the Internet (especially since the Internet is approved in most areas of scientific research).

In line with modern trends in the field of scientific research, some countries have realized that it is not possible to confront scientific plagiarism only through traditional legal methods, because technology usually goes far beyond the laws. Therefore, many universities have resorted to adopting technological and technical measures, as a means of reducing scientific theft and plagiarism, especially those that occur using the Internet, so that the methods of confronting scientific plagiarism are compatible with the methods used to commit it. Because software is primarily anti-plagiarism tools, and not just a purpose for detecting plagiarism cases, as it can often constitute a deterrent factor that prevents people from falling into plagiarism, and therefore it is recommended to use it extensively in universities.

In this regard, the researcher (Mohamed Al-Jawadi) mentioned in his article that, as much as the Internet has contributed to spreading intellectual plagiarism and expanding its fields to include all intellectual, literary and artistic fields, it has also contributed to detecting plagiarism by expanding the area of searching for the origin of the text on the Internet, and he expected that intellectual plagiarism would disappear in the future with the emergence of specialized software.

Among the most important electronic programs specialized in examining informational content on the Internet, we mention the “Turnitin program”, which is considered one of the most famous and widely used text comparison programs in the field of detecting plagiarism on the Internet, as its appearance dates back to the year 1996 to confront scientific and journalistic thefts that were widespread at that time. Due to the efficiency of this program, it has been adopted in about 65% of British universities, and it is a program developed by the company (iParadigms Europe Ltd), which specializes in producing computer software, and the process of supervising it is entrusted to the Shared Information Law Council (JISC).²¹

The University of Cambridge is considered one of the most prominent universities that use this program under the name “Turnitin UK”, relying on its services mainly in all student research, due to its ability to compare texts with millions of data faster and less than traditional methods, by searching on web pages, including deleted archives, pages that have been changed, and materials that have fallen into the public domain, it is also considered an excellent prevention system that students can use as a means of monitoring the authenticity of their research work before submitting it, which reduces the possibility of them falling into plagiarism.

There are also some free programs available through the websites of a number of universities, such as: <http://www.ThePlagiarism.com>, as well as www.PlagiarismChecker.com, which help researchers verify the originality of their research before submitting it for publication, as it fully examines the research and

provides a comprehensive report that enables you to review any part of the research in which you were supposed to refer to the author of the research. In addition to programs for detecting and examining information content, many websites and forums have recently appeared that provide free services to students and researchers, and they work to compare words or research with the data that has been published on the Internet all over the world²².

9. Ethical awareness as a means of preventive protection:

Methods of confronting and avoiding plagiarism are no longer limited to legal procedures and technical measures only, as it has become necessary to think about how to prevent it, as scientific plagiarism is an ethical phenomenon that requires moral awareness above all else. Experience has proven that neither legal texts alone nor technological techniques alone are able to eliminate this phenomenon, especially in the digital environment. Electronic software, for example, cannot search old sources that are not listed on the Internet, nor can it search password-protected articles.

Therefore, many universities today have resorted to relying, in addition to legal and technical protection mechanisms, on proactive or preventive protection.

Preventive or proactive protection means a set of administrative procedures aimed at developing moral conscience, enhancing academic awareness, and addressing the moral conscience of researchers, to discourage them from falling into the trap of scientific theft and plagiarism. It thus includes all publications and instructions issued by university institutions and research centers to ensure academic integrity, and their names vary between: (Scientific Research Charter, Scientific Research Guide, Scientific Honesty Guide, University Ethics Charter, ...), with a focus on teaching good academic practices. Ethical awareness, training students and researchers on how to avoid scientific plagiarism, familiarizing them more with scientific research methodology and obliging them to respect scientific honesty²³.

In support of this trend, the Deanship of Evaluation and Quality at Imam Mohamed bin Saud Islamic University in the Kingdom of Saudi Arabia, within the series of supporting learning and teaching at the university, issued a guide for the benefit of students to prevent them from falling into academic plagiarism, and to introduce them to correct academic practices. This guide states that in addition to using scientific auditors as plagiarism detection software, good scientific research techniques must also be introduced, such as marginalization, documentation, summarization, and citation... It also emphasizes the necessity of informing students and researchers of the administrative consequences and legal penalties prescribed for cases of plagiarism and academic fraud.

In the field of supporting correct academic practices, many studies have indicated that one of the most important means of detecting plagiarism and preventing the theft of intellectual works is publishing them on the Internet, especially in light of the fact that most researchers and university professors at the global level today resort to the Internet to ensure the credibility of research.

In this regard, the researcher (Salem Mohamed Al-Salem) believes that publishing on the Internet is a type of proactive protection, because it does not give thieves the opportunity to carry out other thefts. Another means of supporting correct academic practices is that some European universities program presentations for students at the beginning of the university season to ensure attracting the largest possible number of them, while enabling them to obtain printed booklets containing information on plagiarism. Faculty members also inform students of the university's policy regarding plagiarism, and inform them of what is required of them to avoid falling into it, in addition to the possibility of taking advice from faculty members in the event of any confusion, especially when using online resources²⁴.

What can be concluded after reviewing ethical prevention methods is that good academic practice is not considered a complete substitute for legal and technical measures, but it can contribute, even if only a small part, to reducing this phenomenon, as respect for scientific honesty is a moral virtue above all else.

Conclusion:

Despite the presence of many practices and behaviors that contradict the ethics of scientific research in our university institutions, among all these violations, scientific plagiarism is considered the worst and most harmful, because it has become among the most negative phenomena that threaten the future of scientific research. After reviewing the various legal methods and technical and ethical measures, it can be said that teaching the correct academic scientific research methodology remains the first way to prevent scientific theft and plagiarism in academic circles, even if they are unintentional.

Based on what we mentioned previously, our study reached the results shown below, accompanied by suggested recommendations to reduce the effects of the investigated phenomenon.:

- The legal procedures provided by state agencies, the technical mechanisms provided by electronic software, and specialized websites are no longer sufficient to reduce scientific theft and plagiarism, so it is necessary to think about turning towards other preventive methods such as moral awareness.
 - Encouraging national universities to seriously consider adopting technical measures, by purchasing plagiarism detection software, or engaging in specialized sites and forums that provide free software.
- The first way to prevent scientific plagiarism is to accustom researchers to the methodology of scientific research, by committing to mentioning the sources of all information used in the research, attributing it to its owner, and documenting it in the list of marginalization and in the list of references.
- Supporting joint cooperation initiatives between national universities in order to unify scientific standards in methodology, especially those that distinguish between literary plagiarism and similar terms, especially: (quoting, summarizing, paraphrasing).
 - Devoting scientific integrity and teaching the correct scientific research methodology to all students and researchers, to reduce as much as possible cases of scientific plagiarism committed under reasons of ignorance of scientific research methodology.
 - Spreading awareness among students and informing them of various practices that are inconsistent with scientific research, by organizing seminars, conferences, workshops, and study days, especially those that address topics of copyright and scientific honesty, and drawing students' attention from the beginning to the penalties imposed on cases of scientific plagiarism.
 - Obligating the guardian authorities to issue internal laws and regulations in the form of (a charter, or a guide), detailing precisely how to deal with various practices inconsistent with correct academic conduct, and ensuring that this is circulated to various university institutions and national research centers.
 - Amending the laws related to copyright in Algeria, and adapting them to international laws to accommodate the crime of plagiarism, especially digital plagiarism via the Internet.
 - Ethical scientific research by adopting ethical standards and rules that establish the idea of scientific honesty among students, warn them of the danger of plagiarism and its negative effects, and teach them correct academic practices, because ignorance of them may unintentionally lead them to fall into scientific plagiarism.

Footnotes and references:

1. Vice Presidency for Postgraduate Studies and Scientific Research and the National Plan for Science, Technology and Innovation, King Saud University, Scientific Quotation and Plagiarism in Scientific Research from an Ethical Perspective, p. 3, published on the website: <https://www.ut.edu.sa/documents/1583338/728984d3-1c76-40e8-9212-2f01d3d2db48>
2. Deanship of Evaluation and Quality at Imam Mohamed bin Saud Islamic University, Series for Supporting Learning and Teaching at the University, Plagiarism: What is it? How can I avoid it?, Kingdom of Saudi Arabia, 2013, p. 8, available at: <https://units.imamu.edu.sa/colleges/science/FilesLibrary/Documents/08.pdf>
3. Deanship of Skills Development, University Vice Presidency for Development and Quality at King Saud University, How do your students avoid the mistake of falling into academic plagiarism, a paper published in the series "Advice in University Teaching," 2012, available on the website: www.dsd.edu.sa.
4. Abd Allatif Mohamed Sayed Al-Hadidi, Poetic Thefts between Al-Amdî and Al-Jurjani in the Light of Ancient and Modern Literary Criticism, 1st edition, Al-Azhar University, Mansoura, Egypt, 1995, p. 59.
5. Plagiarism is the unacknowledged and inappropriate use of the ideas or wording of another individual " University of southern California, Trojan integrity- Au guide for avoiding plagiarism, Available at: http://dornsife.usc.edu/assets/sites/903/docs/Trojan_Integrity_Guide_to_Avoiding_Plagiarism.pdf, p. 03.
6. Amer Mahmoud Al-Kiswani, Intellectual Property: What It Is, Its Vocabulary, and Methods of Protection, Al-Jib Publishing and Distribution, Amman, Jordan, 1998, p. 23.
7. Abd Erazzak Al-Sanhouri, The Mediator in Explanation of Civil Law - Property Rights, Part 8, Arab Nahda, Cairo, p. 214.
8. Nawaf Kanaan, Copyright: Contemporary Models of Copyright and Means of Protection, House of Culture, Amman, 1992, p. 73.
9. Sayed Al-Houari, Researchers' Guide to Preparing Scientific Research, Dar Al-Jeel Printing, Cairo, 2004, p. 42.
10. King Abdulaziz City for Science and Technology, National Plan for Science, Technology and Innovation, Scientific Secretariat Regulations, 2012, p. 13, available at: http://gdrg.kacst.edu.sa/Site/Templates/Integrity_a.pdf. 04-12-2016 11.30
11. Sayed Al-Hawari, op cit, p. 42.

12. Imad Issa Saleh, Amani Mohamed Sayed, The role of academic libraries in preventing and detecting scientific plagiarism - an exploratory study of library services and plagiarism detection software - a study presented to the International Conference on E-Learning in the Arab World: Its Problems and Prospects for its Development, Cairo, July 9-11, 2012, p. 6, available at: <http://fr.slideshare.net/esalh/ss-13988012> 12-06-2016 17.35
13. Sayed Al-Hawari, op cit, p. 51.
14. Geneviève KOUBI. S'interroger sur le plagiat dans les recherches universitaires et scientifiques. Ouvrage collectif sous la direction de Gilles J. Guglielmi et Geneviève Koubi. Editions L.G.D.J. 2011
14. Dhaw Muftah Mohamed Ghamek, citation and intellectual rights of the author in theory and practice, Postgraduate Academy Publications, Tripoli, Libya, 2000, p. 96.
15. Aissani Taha, Correct academic practices and methods of avoiding academic plagiarism, an article within the work of the National Forum on Strengthening Scientific Research Literature, Center for Scientific Research Generation, at the National Library of Algeria, Algeria, December 29, 2015, p. 135.
16. Deanship of Skills Development, How do your students avoid the mistake of falling into plagiarism (a working paper from a series of tips in university teaching), College of Administrative Sciences and Legal Sciences, Imam Saud University, Saudi Arabia, 2010, p. 72
17. Khaled Abd Essalam, Academic plagiarism in Algerian universities: its fields, causes, and mechanisms for combating it, International Forum: "University and Professional Ethics, Current Challenges" - organized by the Research Center in Social and Cultural Anthropology in Oran on November 22 and 23, 2015.
18. Article 25 of Order 03-05 dated 07/23/2003 relating to copyright and related rights.
19. Article 31 of Executive Decree 08-131 of 05/03/2008 containing the special basic law for the permanent research professor.
20. Ministry of Higher Education and Scientific Research, PhD Charter, Office of University Press, December 2014, p. 14.
21. Salem bin Mohamed Al-Salem, Scientific theft in the electronic environment - a study of the challenges and legislation concerned with copyrights, the Sixth Conference of the Saudi Library and Information Association, entitled: Environment and Secure Information: Concepts, Legislation and Applications, April 6/7, 2010, Riyadh, p. 20.
22. Haifa Michael Al-Harbi, Plagiarism Detection Software, - Descriptive and Analytical Study, Ph.D Theses, Taibah University, College of Arts and Human Sciences, Department of Information and Learning Resources, Medina, 2014-2015, p. 10
23. Mohamed Amin Awad, Ethics in Scientific Research, Dialogue Forum, Board of Directors of the Deanship, Ministry of Higher Education: Higher Education - Globalization Towards a Charter of Ethical Action - Amman, Hashemite Kingdom of Jordan, 11/22/2005, p. 17.

List of references:

First: Legal texts

1. Article 25 of Order 03-05 dated 07/23/2003 relating to copyright and related rights.
2. Article 31 of Executive Decree 08-131 of 05/03/2008 containing the special basic law for the permanent research professor.

Second: Books

1. Abd Allatif Mohamed Sayed Al-Hadidi, Poetic Thefts between Al-Amdî and Al-Jurjani in the Light of Ancient and Modern Literary Criticism, 1st edition, Al-Azhar University, Mansoura, Egypt, 1995.
2. Amer Mahmoud Al-Kiswani, Intellectual Property: What It Is, Its Vocabulary, and Methods of Protection, Al-Jib Publishing and Distribution, Amman, Jordan, 1998.
3. Abd Erazzak Al-Sanhouri, The Mediator in Explanation of Civil Law - Property Rights, Part 8, Arab Nahda, Cairo.
4. Nawaf Kanaan, Copyright: Contemporary Models of Copyright and Means of Protection, House of Culture, Amman, 1992.
5. Sayed Al-Houari, Researchers' Guide to Preparing Scientific Research, Dar Al-Jeel Printing, Cairo, 2004.
6. Dhaw Muftah Mohamed Ghamek, citation and intellectual rights of the author in theory and practice, Postgraduate Academy Publications, Tripoli, Libya, 2000.
7. Ministry of Higher Education and Scientific Research, PhD Charter, Office of University Press, December 2014.

Third: University theses

1. Haifa Michael Al-Harbi, Plagiarism Detection Software, - Descriptive and Analytical Study, Ph.D Theses, Taibah University, College of Arts and Human Sciences, Department of Information and Learning Resources, Medina, 2014-2015.

Fourth: Conferences

1. Aissani Taha, Correct academic practices and methods of avoiding academic plagiarism, an article within the work of the National Forum on Strengthening Scientific Research Literature, Center for Scientific Research Generation, at the National Library of Algeria, Algeria, December 29, 2015.
2. Deanship of Skills Development, How do your students avoid the mistake of falling into plagiarism (a working paper from a series of tips in university teaching), College of Administrative Sciences and Legal Sciences, Imam Saud University, Saudi Arabia, 2010.
3. Khaled Abd Essalam, Academic plagiarism in Algerian universities: its fields, causes, and mechanisms for combating it, International Forum: "University and Professional Ethics, Current Challenges" - organized by the Research Center in Social and Cultural Anthropology in Oran on November 22 and 23, 2015.
4. Mohamed Amin Awad, Ethics in Scientific Research, Dialogue Forum, Board of Directors of the Deanship, Ministry of Higher Education: Higher Education - Globalization Towards a Charter of Ethical Action - Amman, Hashemite Kingdom of Jordan, 11/22/2005.

Fifth: Websites

1. Vice Presidency for Postgraduate Studies and Scientific Research and the National Plan for Science, Technology and Innovation, King Saud University, Scientific Quotation and Plagiarism in Scientific Research from an Ethical Perspective, p. 3, published on the website: <https://www.ut.edu.sa/documents/1583338/728984d3-1c76-40e8-9212-2f01d3d2db48>
2. Deanship of Evaluation and Quality at Imam Mohamed bin Saud Islamic University, Series for Supporting Learning and Teaching at the University, Plagiarism: What is it? How can I avoid it?, Kingdom of Saudi Arabia, 2013, p. 8, available at: <https://units.imamu.edu.sa/colleges/science/FilesLibrary/Documents/08.pdf>
3. Deanship of Skills Development, University Vice Presidency for Development and Quality at King Saud University, How do your students avoid the mistake of falling into academic plagiarism, a paper published in the series "Advice in University Teaching," 2012, available on the website: www.dsd.edu.sa.
4. Plagiarism is the unacknowledged and inappropriate use of the ideas or wording of another individual " University of southern California, Trojan integrity- Au guide for avoiding plagiarism, Available at: http://dornsife.usc.edu/assets/sites/903/docs/Trojan_Integrity_Guide_to_Avoiding_Plagiarism.pdf
5. King Abdulaziz City for Science and Technology, National Plan for Science, Technology and Innovation, Scientific Secretariat Regulations, 2012, p. 13, available at: http://gdrq.kacst.edu.sa/Site/Templates/Integrity_a.pdf. 04-12-2016 11.30
6. Imad Issa Saleh, Amani Mohamed Sayed, The role of academic libraries in preventing and detecting scientific plagiarism - an exploratory study of library services and plagiarism detection software - a study presented to the International Conference on E-Learning in the Arab World: Its Problems and Prospects for its Development, Cairo, July 9-11, 2012, p. 6, available at: <http://fr.slideshare.net/esalh/ss-13988012> 12-06-2016 17.35

References in foreign languages:

1. Geneviève KOUBI. Questioning plagiarism in university and scientific research, Collective work under the direction of Gilles J.Guglielmi and Geneviève Koubi, Editions L.G.D.J.2011.