Duplicate Publication, Divided Publication, Text Recycling, and Copyright Infringement: What Do's and What Don'ts to Avoid Self-Plagiarism

Mohammad Ibraheem Ahmad
IT Researcher, MSc. (MAIS), Alexandria University Egypt, PGD (IT), Amity University India

Dalia Mahfouz Sweed
Assistant Lecturer of Business Administration, Faculty of Commerce, Alexandria University

المستخلص:

Abstract:

Over the past decades, many researchers argued different aspects of ethical considerations regarding scientific research. There is substantial body of literature arguing about self-plagiarism phenomenon. It is a problematic issue which raised controversy among researchers. While proponents consider ethical and legal issues, opponents argue about misnomer and the contradictory of plagiarizing researcher's own work.

This paper aims to explore this phenomenon. Furthermore, scientific research practices that may lead to this phenomenon were reviewed. Drawing upon this review, we conclude some guidelines for researchers to avoid self-plagiarism.

Descriptors: *Self-Plagiarism, Duplicate (Dual) Publication, Divided Publication 'Salami-Slicing', Text Recycling 'Ruse', and Copyright infringement.*

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1- Introduction:

Over the past decades, many researchers argued different aspects of ethical considerations regarding scientific research. In this regard, scientific plagiarism was one of the most important issues raised for discussion by researchers. Plagiarism has been defined as academic fraud that implies taking over of other's published or unpublished ideas, processes or text without acknowledgment of the original source, and with intention to present it as own property (Bird and Sivilotti, 2008; Broome, 2004; Bonnell et al., 2012; Mehić, 2013). It implies academic dishonesty that threatens researcher who committed by losing credibility and perceived integrity (Mehić, 2013). Ethical caveats, concerning scientific plagiarism, were extended to include a new phenomenon which researchers called self-plagiarism. This is where one plagiarizes his own work.

This paper is organized as follows. Section 2 represents an overview of self-plagiarism. Section 3 reviews Self-plagiarism from publishers' perspective. Section 4 discusses negative consequences of self-plagiarism. Section 5 reviews popular scientific practices that may lead to Self-plagiarism. Finally, some concluding remarks and guidelines for researchers to avoid self-plagiarism are reported in section 6.

2- An overview of self-plagiarism:

Researchers suggested a number of definitions to describe this phenomenon. Bird and Sivilotti (2008) defined self-plagiarism as "the reuse of one's own writings", and Rösing and Cury (2013) defied the phenomena as "the imitation of what has been previously published by the same author or group of authors". Schultz, Rauber and Heideman (2015) noted that "self-plagiarism (or auto-plagiarism), defines as copying from previous work by the author", while Broom (2004) stated that "self-plagiarism refers to the not-so-uncommon practice of "reusing" some of one's own already-published writings in a subsequently published article". In addition, Bonnell, et al, (2012) described self-plagiarism as "borrowing one's own ideas from one's own publication(s) without attribution".

Based on these definitions, the current study defines self-plagiarism as the imitation or reusing some of one's own previously published writings in a subsequently published article without citation or referring to original work. Roig (2005; 2011) suggested four distinct types of self-plagiarism[1]: duplicate publication of a manuscript, fragmented publication or the partitioning of a study into several manuscripts, text

[1] **Will be discussed in section 5 in detailed.**

reuse, and copyright infringement. While the degree of transgression is not the same for these types of self-plagiarism, the intent to mislead is the ultimate ethical lapse (Bird and Sivilotti, 2008).

From an ethical standpoint, self-plagiarism was considered, by most researchers, as a clear violation of the ethical standards of scientific research. When authors try to recycle their old text as new material, and misrepresent it as an original contribution to the literature, they fail to give credit to their own work on one side (Resnik, 2005), and it is considered an attempt to deceive the audience on the other side (Bonnell, et al, 2012; Broome, 2004); because it implies that the work the reader currently sees is new and original and not copied from previous work (Samuelson, 1994). In the same vein, Samuelson (1994) stated that just as the plagiarist breaks community norms by claiming someone else's work as his/her own, the self-plagiarist may violate community norms by claiming a work as a new contribution to the field when it isn't (Samuelson, 1994).

In spite of researchers' agreement on the moral aspect of self-plagiarism issue, they argued about misnomer and the contradictory of plagiarizing one's own work. The term self plagiarism is still met by some researchers, upon the first encounter, with frowns of puzzlement (Andreescu, 2013). Bird

(2002) noted that self-plagiarism is not possible since plagiarism refers to claiming the words or ideas of another as one's own. In the same context, Scanlon (2007) discussed that self-plagiarist author could not be accused of theft, because what the author takes is already his/her, and they had not attempted to gain any benefit from the work of others. So, he stated that accusing an author of stealing his own work is like accusing someone of burglary for breaking into his own home, because he had forgotten his key. Consequently, some researchers suggested that self-plagiarism involves dishonesty, but not intellectual theft (e.g. Resnik, 2005 (p.177); Scanlon, 2007). Other researchers have proposed terms such as: recycling fraud, text recycling, and text reuse to avoid confusion with plagiarism (Bird and Sivilotti, 2008).

In truth, it is a complex matter to determine what is self-plagiarisam versus what is fair use, self plagiarism is sometimes both unlawful and unethical. Other times it is unethical but not unlawful. There are also times when reuse of one's own material is fair, both as a matter of law and as a matter of ethics (Samuelson, 1994). The term "self-plagiarism" requires some in-depth examination because it covers a variety of distinct but related practices (Bird, 2002).

In practice, some similarity or duplication of text may be deemed acceptable, particularly when describing equations, data, or methods where similarity is essential to convey consistency across multiple papers (Schultz et al., 2015). Even so, it may be good professional conduct to cite the earlier work when reusing portions of it Samuelson (1994). Whether the publication of two or more reports based on the same or on closely related research, prior publication should be noted and referenced in the manuscript, and the author must inform the journal editor of the existence of any similar manuscripts that have already been published or accepted for publication (Scanlon, 2007).

Samuelson (1994) argued some factors that may explain, and perhaps excuse, reuse of portion of one's previous work:

- Sometimes researchers assert that previous work needs to be restated in order to lay the groundwork for new contribution in the second work.
- Sometimes these portions of the previous work must be repeated in order to deal with new evidence or arguments.
- In some cases, the audience for each work is so different, that publishing the same work in different places was necessary to allow the message to get out.

- Other researchers believe that is an accepted practice in the field to do particular kinds of replications (i.e. turning a conference paper into a journal article or a book chapter).
- Furthermore, author may sometimes say things in much the same way without realizing it, because that is how the author thinks he said it so well the first time, that it makes no sense to say it differently a second time.

Moreover, Bonnell, et al. (2012) discussed that the motivation for self-plagiarism is related to the overused saying "publish or perish", they also argued that highly competitive systems that counts papers when promotions and grant proposals are being evaluated can lead to dangerous temptation. Another aspect that should be warned is that research projects are always subdivided, and it is almost natural that parts of it need to be repeated, leading to self-plagiarism. Some journals even accept the same project with parts. However, the art of disseminating scientific information should always include creativity and novelty both from the knowledge point of view, as well as from the scientific approach to a research question and discussion (Rösing and Cury, 2013).

3- Self-plagiarism in publication ethics:

The number of journals using self-plagiarism detection has increased and they tend to be strict in this respect (Mehić, 2013). Professional journals rely on peer review procedures for judging whether to accept articles for publication, in order to guard against multiple publications of the same material (Samuelson, 1994). In addition, most journals require a declaration from the author to guarantee the originality of the submitted material. Many scientific periodicals referred to the issue of self-plagiarism within their ethical standards and rules of publication. In the next part, we will review some examples.

- The *MLA Style Manual and Guide to Scholarly Publishing* warning readers that professionals generally disapprove if previously published work is reissued, whether verbatim or slightly revised, under another title or in some other manner that gives the impression it is a new work (Scanlon, 2007).
- *The National Science Foundation (NSF)* and *Public Health services (PHS)* consider Self-plagiarism or multiple publication of the same scientific work in more than one Journal as a deviation from accepted practices and actionable misconduct (Andersen, 1998). In the

same vein, the *Publication Manual of the American Psychological Association* warned from Duplicate publication of data (Scanlon, 2007).

- *Journal of International Business Studies (JIBS)* stated that Redundancy or self-plagiarism is unacceptable publishing behavior. Since publication decisions are influenced by the novelty and innovativeness of manuscripts, such deception is inappropriate and unethical. They warned that in instances the Editor deems as major redundancy (e.g., multiple overlapping paragraphs), the paper will be rejected and authors may be barred from submitting to (*JIBS)* for a period of time (Eden and Cantwell, 2015).
- In *American Meteorological Society (AMS)* journals, self-plagiarism could be considered unethical as it may involve copyright infringement. Thus, authors are required to transfer intellectual property rights to the *(AMS)*, hence, authors are no longer own previously published work (Schultz et al., 2015).
- When submitting a manuscript to *Journal of Obstetric, Gynecologic and Neonatal Nursing* (*JOGNN)*, the author is required to submit a signed "Transfer of Copyright", which prevents the author from submitting

the manuscript to another journal or publish it in another format, even during the period of review (Lowe, 2003).

- The *World Association of Medical Editors (WAME)* stated that journals should develop a system for investigating and meting out penalties of self-plagiarism. On this basis, the editorial staff of the *Journal of Medical Toxicology* developed a system a system that tests whether manuscripts represent important and original contributions to the field, and properly attribute previously published work by either the same authors or others (Bird and Sivilotti, 2008).
- *Springer* referred to self-plagiarism in their publishing ethics for journals, and stated that self-plagiarism is a widespread practice and might be unintentional, and that transparency by the author on the use of previously published work usually provides the necessary information to make an assessment on whether it is deliberate or unintentional (Springer, 2013)
- *Elsevier* referred to Multiple, redundant or concurrent publication in their Policies and ethics for publications, and stated that An author should not in general publish manuscripts describing essentially the same research in more than one journal or primary publication (Elsevier, 2015)

- *Pharmaceutical Research* stated that duplicating one's own work in successive manuscripts becomes a matter of copyright infringement and emphasized that "verbatim copying of entire paragraphs (even in the methods section) whether from other authors' or one's own prior work is never tolerated" (Swaan, 2010).

4- Negative Consequences of Self-plagiarism:

Despite the lack of attention to this thorny issue, academic self-plagiarism has many negative consequences on researchers, and scientific community as a whole. Researchers noted that this practice is problematic for number of reasons:

- It generates poor reputation for a researcher, and leads to mistrust of his past, current and future writings (Roig, 2011). Moreover, it may be deceptive; because it implies that the author is more productive than is actually the case (Bird, 2002), and appears to be little more than a means of adding heft to a C.V. (Scanlon, 2007).
- Researcher's lack of interest of self-plagiarism issue and responding with indignation to this act, has considered itself as a moral failing, and leads to loss of researcher's self-respect (Mallon, 1989 cited in Scanlon, 2007).

- It affects readers by deceiving and misleading them regarding the authenticity of information. They are also denied a link to the detailed and true source of the information (Scanlon, 2007).
- Recycled data in a self-plagiarized paper causes needless duplicate effort, waste of time, and overload to the peer-review and editorial system (Bird, 2002; Roig, 2011). Furthermore, if a journal acquires a reputation as a recycling bin, subscriptions are likely to fall of, and innovative authors will avoide publishing there (Samuelson, 1994).
- Self-plagiarism may result in copyright infringement, if the author re-publishes previously published text, without explicit permission from the publisher for reuse of material (Bird, 2002; Bonnell, et al., 2012).
- Even if the author has retained all copyrights, it remains unethical to publish multiple versions of the same article, and display each as a distinct contribution to the literature in the field, while it is not (Samuelson, 1994). This act can dilute the quality of science across the board (Roig, 2011).
- Dual/Redundant publications mislead researchers as to the true nature of a given database. For example, an author who wishes to study the significance of an

experimental effect or phenomenon using sophisticated statistical techniques, such as meta-analysis, will arrive at erroneous results and conclusions if the same experiment were to be counted twice (Roig, 2011).

- Furthermore, from methodological and statistical point of view, Data augmentation or fragmentation can have serious negative consequences for the integrity of the scientific database. This is because data from the same subject sample are included in a Meta analysis under the assumption that all of the data are derived from independent samples (Roig, 2011).

5- Scientific Research Practices that may lead to Self-Plagiarism:

The concept of ethical writing entails an implicit contract between reader and writer whereby the reader assumes, unless otherwise noted, that the material written by the author, is new, is original and is accurate to the best of the author's abilities (Roig, 2011). However, authors used to increase the number of publications from a single study (Langdon-Neuner, 2008). In this essence, Elm, Poglia, Walder and Tramer (2004) identified six duplication[1] patterns: identical samples and

[1] **By using the term "duplication", they do not mean the narrow concept of Duplicate (Dual) Publication. They mean the**

identical outcomes, identical samples and different outcomes, increasing sample and identical outcomes (new data added), decreasing sample and identical outcomes (reporting only part of a larger trial), and finally different sample and different outcomes (Elm et al., 2004). However, Roig distinguished between four types of self-plagiarism: Duplicate (Dual) Publication; Data Fragmentation (Salami-Slicing); Text Recycling; and Copyright Infringement (Roig, 2011). Unlike Roig's point of view, we consider these types as scientific writing practices that may lead to Self-Plagiarism.

Actually, classification of Elm et al. (2004) matches Roig's one. Duplicate publication may underlie three of Elm et al. (2004) patterns: identical samples and identical outcomes, identical samples and different outcomes, and increasing sample and identical outcomes. Similarly, Salami-Slicing may underlie the decreasing sample and identical outcomes pattern. Furthermore, Text Recycling may underlie the different sample and different outcomes pattern.

Scanlon argued that two of Roig's four types of self-plagiarism stand out as clearly wrong; duplicate publication and multiple salami-slicing are deceptive and in some instances, at least, fraudulent. In addition, Copyright

comprehensive concept of republication of scientific work, as appeared in the context of their work.

infringement is more problematic; however, this is, strictly speaking, a matter of the law and not necessarily morals. Nevertheless, limited text recycling is much more ethically ambiguous, so much so that its examination brings into sharper focus our ambivalent response to plagiarism itself (Scanlon, 2007).

According to Langdon-Neuner, publishing different aspects of the same study in separate papers is not necessarily wrong. Although the position on republication of identical articles is fairly clear, current guidelines are lacking when it comes to divided publications and reuse of text (Langdon-Neuner, 2008).

In the next sections we will discuss Roig's four practices that may lead to Self-Plagiarism.

A. Redundant and Duplicate (Dual) Publications

One of the foundations of science is that published work be an original contribution by the named author or authors (Schultz et al., 2015). The standard practice for authors of scientific or scholarly papers is to submit their paper for publication to a single journal (Roig, 2011). Authors submitting their manuscripts to most journals must confirm that their work has not been published elsewhere (Schultz et al., 2015). This is known as Duplicate publication, which is

simply republication of papers that are identical to or similar to the original paper reporting the same body of research (Langdon-Neuner, 2008).

While some considers both Duplicate and Redundant publication the same, which is the practice of republishing all or substantial parts of an article for more than one audience (McCarthy, p. 26, as cited in Scanlon, 2007), others distinguished between Duplicate (Dual) publication and Redundant publication. For example, Duplicate Publication according to Bird, refers to the practice of publishing what is essentially the same paper in two or more journals, While Redundant Publication occurs when an author reuses some portion of previously published data in a new publication (Bird, 2002). Similarly, Duplicate Publication according to Roig, refers to the practice of submitting a paper with the same data to more than one journal, without alerting the editors or readers to the existence of other identical published versions, which may differ only slightly from the original by, for example, changes to the title, abstract, and/or order of the authors (Roig, 2011). However, redundant publication, according to Roig, is a related and more frequent practice which occurs when researchers publish the same data, with a somewhat different textual slant within the body of the paper. For example, redundant publication papers may contain a

slightly different interpretation of the data or the introduction to the paper may be described in a somewhat different theoretical or empirical context (Roig, 2011).

Bretag and Mahmud (2009) claimed that the issue is not with the paper being published twice, but with the author's intention to deceive (the Editor, reviewers, readers, and perhaps in the longer term, other stakeholders such as supervisors, funding bodies, grant committees) that each paper is an original work. This is what constitutes self-plagiarism.

For the Duplicate publication to be acceptable, the author would need to indicate that the paper had been submitted elsewhere, and for the published version of the paper to have a statement that it also appears in another journal (Bretag and Mahmud, 2009). Following are some instances in which dual publication may be acceptable:

- Some authors who submit the same article to more than one journal do so with the rationale that their paper would be of interest to each set of readers who would probably not otherwise be aware of the other publication (Roig, 2011). However, the editors of both journals would have to agree to this arrangement and the existence of each version of the published paper would have to be made clear to each set of readers (Roig, 2011).

- Duplication of text from a non peer-reviewed source (e.g., most conference preprints, project progress reports, personal or project websites, dissertations) will not constitute plagiarism in general (Schultz et al., 2015). Summaries or abstracts of papers that are published in conference proceedings are often subsequently published in expanded form as a journal article (Roig, 2011). This is mainly because, in theory, the journal submission would be a substantially revised version of the conference presentation, having benefitted from extensive peer review and feedback at the conference (Bretag and Mahmud, 2009).
- Another instance when an article published in one language is translated into a different language and published in a different journal (Roig, 2011).
- Furthermore, Submitting a significantly revised version of a previously published paper to a new journal would be acceptable, only if there is some clear acknowledgement of the previously published work (Bretag and Mahmud, 2009).
- Only where a conference paper has been orally presented but never published in any format, it is Bretag and Mahmud's claim that it would be legitimate academic practice to then publish it as a journal article with no

reference to the former presentation (Bretag and Mahmud, 2009).

In these and other cases where redundant publication is being considered by the author, the editors and the readers of each paper must be made aware that a second published version exists (Roig, 2011). Similarly, Bretag and Mahmud warned of the instance where authors neglect to mention the original conference paper and therefore implies that the journal article is original, this could arguably be described as self-plagiarism. The same argument applies to conference papers already published electronically. In both cases, in addition to acknowledging the original conference paper, the author may need to seek permission from the Editor of the conference proceedings to ensure that no copyright has been infringed (Bretag and Mahmud, 2009).

B. Data Fragmentation (Salami Slicing)

The term "Salami-Slicing" publication is used to address the reporting of a single study's results in "least publishable units" within multiple articles (Scanlon, 2007; Langdon-Neuner, 2008). It is a relatively recent term, salami publication, when one divides their research work into small, inappropriate parts and gets them published (Peeran, Ahmed, Mugrabi, and Peeran, 2013) in multiple articles (Scanlon,

2007). Roig refers to this practice as Fragmented publication, also known as Piecemeal publication, that represents situations in which a large data set from a complex study is broken down into two or more components, and each is published as a separate paper (Roig, 2005). However, Langdon-Neuner preferred to use the term divided publication than Salami-Slicing to denote both ethical and unethical instances (Langdon-Neuner, 2008). A related malpractice known as data augmentation occurs when a researcher publishes a study and subsequently collects additional data, which typically end up strengthening the original effect, and publishes the combined results as a new study. The reader is mislead into believing that the data from the new study is derived from a sample that is different than the one from which the initial data were derived (Roig, 2011).

Divided publication is considered ethically unacceptable when a number of articles impart the same data or results (Langdon-Neuner, 2008). This practice can be misleading to readers, who may assume each article is derived from a separate study sample (Scanlon, 2007). Roig argued that segmenting of a large study into two or more publications is somewhat different than reporting exactly the same data in two publications, but it is a similarly unacceptable scientific practice. As with redundant publication, salami slicing can

lead to a distortion of the literature by leading unsuspecting readers to believe that data presented in each salami slice (i.e., journal article) is derived from a different subject sample (Roig, 2011).

C. Text Recycling (Reuse)

As well as reusing the same data, authors might recycle ideas or reuse text that they have used before in another article (Langdon-Neuner, 2008). Actually, an author might recycle some introductory background material, literature review text, and, where appropriate, study methods descriptions (Scanlon, 2007). It is possible to have two or more papers describing legitimately different observations that contain almost identical methodology, literature reviews, discussions, and other very similar or even identical textual material (Roig, 2011). There are those who would argue that not citing your own work when you have used large sections of text from one or more previously published papers in a paper presented as 'original' is almost fraudulent (Bretag and Mahmud, 2009). Their perspective represents what is known as Text Recycling. Text recycling is the copying of portions of one's own previously published work, especially when studies include "almost identical methodology, literature reviews, discussions, and other similar or identical textual material" (Scanlon,

2007). It can be defined simply as a writer's reuse of portions of text that have appeared previously in other works (Roig, 2011)

Collberg and Kobourov addressed Different forms of text recycling (Collberg and Kobourov, 2005, P. 4):

- Textual reuse: incorporating text/images/etc. from previously published work, which is articles published in refereed conferences and journals where copyright is assigned to someone different from the author.
- Semantic reuse: incorporating ideas from previously published work.
- Blatant reuse: incorporating texts or ideas from previously published work such that the two works are virtually indistinguishable.
- Selective reuse: incorporating bits-and-pieces from previously published work.
- Incidental reuse: incorporating texts or ideas not directly related to the new ideas presented in the paper (such as related work sections, motivating examples, etc.).
- Reuse by cryptomnesia: incorporating texts or ideas from previously published work while unaware of the existence of that work.

- Opaque reuse: incorporating texts or ideas from previously published work without acknowledging the existence of this work.
- Advocacy reuse: incorporating texts or ideas from previously published work when writing to a community different from that in which the original work was published.

Collberg and Kobourov further explained, when these actions pertain to one's own work we talk about textual *self*-reuse, etc. When it is believed that the actions are ethically or legally questionable we replace *reuse* by *plagiarism*, as in blatant semantic opaque self-*plagiarism*, which is reusing one's own previously published ideas in a new publication without adequate attribution (Collberg and Kobourov, 2005).

If textual recycling is a "grey zone" in matters of copyright, its ethical features are even more shadowy (Scanlon, 2007). Self-plagiarism occurs when substantial amounts of text previously published by the same author are used without citation and without quotation (Schultz et al., 2015). Scanlon argues that we do and should give writers legal and ethical latitude for *limited* self-copying, although certainly not for egregious duplication (Scanlon, 2007). Nevertheless, It

is unethical for an author to copy text, figures, or tables (i.e., plagiarize) from other work without attribution (Schultz et al., 2015). Reusing a several-sentences-long anecdote may be permissible; cutting and pasting whole pages almost certainly would not be (Scanlon, 2007).

Samuelson pointed out that some people use a "30% rule", which referred to as "rule of thumb" for textual re-use for being acceptable (Samuelson, 1994). He explains this issue for one may reuse as much as 30% of one article in another. Nevertheless, this would be inappropriate when applied to a book for instance (Samuelson, 1994). Unlike Samuelson's "rule of thumb", Langdon-Neuner believes that the content of the text is critical (Langdon-Neuner, 2008)

Roig identified forms of acceptable text recycling (Roig, 2011):

- Recycling text from types of proposals reviewed within academic institutions is generally considered an acceptable practice.
- Published paper based on a conference presentation where some modifications are made to the paper based on the audience's feedback: the standard practice is to also inform the reader about its prior version.

- Conference abstracts or even the preliminary papers themselves which are subsequently published as proceedings by the sponsoring organization, the author should inquire as to whether that organization permits republication of their materials.
- To further clarify the nature of these two products, authors are also strongly encouraged to insure that the both, the paper presented at a conference and its published version share the same or similar title.
- Recycling sections of a complex method section (which are often highly technical and can be laborious to write) from a previously published paper.

D. Copyright Infringement

Violation of copyright is both possible and problematic since it is a legal concept (Bird, 2002). Scanlon argues that important distinctions between plagiarism and copyright infringement often are blurred. He further explains copyright infringement is a legal matter grounded in the economics of property; plagiarism is an ethical failing based on theft and imposture (Scanlon, 2007). Copyright law covers the expression of an idea, not the idea itself, so rewording and republishing a paper – which many would regard unacceptable – may perfectly be legal (Collberg and Kobourov, 2005).

Samuelson claimed that, self-plagiarism is sometimes both unlawful and unethical. Other times it is unethical but not unlawful. There are also times when reuse of one's material is fair, both as a matter of law and as a matter of ethics (Samuelson, 1994). Roig argues, with some exceptions, the unauthorized use of copyrighted work violates copyright law and represents copyright infringement (Roig, 2011). Although copyright automatically goes to authors, they frequently assign their copyright to publishers, and publishers often grant authors the right to use, free of charge, all or part of their articles in other publications with proper attribution (Bird, 2002). These exceptions to copyright infringement fall under the doctrine of "Fair Use" of copyright law and represent instances in which the activity is largely for nonprofit educational, scholarship, or research purposes (Roig, 2011). However, Scanlon argues that unpaid authors may recycle some amount of their own work in subsequent publications without necessarily running afoul of copyright (Scanlon, 2007)

Samuelson addressed four factors to be considered in making determinations as to whether a reuse of copyrighted material is fair or infringing; the purpose of the use, the nature of the copyrighted work, the amount used, and the impact on potential markets for the copyrighted work (Samuelson, 1994). The more noncommercial and research-oriented the purpose of

the reuse, the more factual (as compared with fanciful or artistic) the nature of the copyrighted work, the smaller the quantum reused in relation to the work as a whole, and the lower the potential for meaningful economic harm to the owner of the copyright arising from the defendant's activities, the more likely author reuse of his or her own material would be considered fair use (Samuelson, 1994).

It should be clear that redundant or duplicate publication, which occurs without the respective editors' knowledge, is not only considered a form of self-plagiarism, but it may also qualify as copyright infringement because the copyright may be held by the publisher; not by the author, especially when these articles are published by means of different publishers (Roig, 2011). Even if you give a citation, you might be in breach of copyright law if you have assigned copyright to a publisher of your article. On the other hand, an author could probably successfully defend such a claim if the amount of text reused is small relative to the entire original article, and republication of this amount of text does not harm the market value of the original article for the copyright holder (Langdon-Neuner, 2008). The use of relatively short direct quotes from a published work does not usually require permission from the copyright holder as it typically falls under the "fair use" provision. However, extensive quoting of text from a

copyrighted source can constitute copyright infringement, whether the appropriated text is properly enclosed in quotation marks or correctly paraphrased, even if a citation is provided according to established scholarly conventions (Roig, 2011).

6- Conclusions and Guidelines for Researchers

Nowadays, increasing awareness of Self-plagiarism rises among academics. This phenomenon has been widely discussed in academic societies. These discussions encounter ethical and legal issues of the phenomenon. Standards are being included in Publication manuals of academic journals for avoiding Self-plagiarism. We argue that there are scientific research practices that may involve dishonesty, leading to self-plagiarism. Based upon our review of literature, following are some guidelines for researchers to avoid self-plagiarism.

- Authors should be aware of the debates surrounding the grey area of self-plagiarism and would be well advised to make an effort to reformulate the text that they have published before (Langdon-Neuner, 2008). An author should join a group of experienced team of researchers who are working on a few projects, which will provide him/her with a vast amount of knowledge and expertise (Peeran et al., 2013).

- To avoid self-plagiarism, the author(s) must rewrite the common sections for each manuscript with self-citation as needed (Lowe, 2003). Sections containing duplicate or similar text must (i) appropriately cite the original source to promote the primacy of the source and (ii) indicate that the text largely follows directly from that source (Schultz et al., 2015). Moreover, republication of parts of an article is acceptable provided the articles report on different data or use different analysis of the same data (Langdon-Neuner, 2008).
- Authors should cite correctly and adequately, as necessary (Peeran et al., 2013). There are some circumstances in which the use of quotations, particularly lengthy ones, may require permission from a copyright proprietor. Direct quotation and acknowledgment of the source may avoid claims of plagiarism, but copyright issues should be considered separately (Schultz et al., 2015)
- Before submitting their manuscript for publication, authors should (1) ask their peers who have already published their works to check it, (2) Pass their prepared manuscript through plagiarism check websites, (3) Submit their manuscript for scientific language editing as and when required (Peeran et al., 2013).

- On submission to a journal the editor should be informed of the existence of related submissions or publications, even if they are in a different language (Langdon-Neuner, 2008). Republication of an article is only acceptable if the journal that published the original consents and publication is accompanied by a statement that the article is a republication, the articles cite each other, and the source of the data is clear (Langdon-Neuner, 2008).

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