## Editorial



# What is plagiarism and how to avoid it?

riting a manuscript is an art. Any clinician or an academician, has a hidden desire to publish his/ her work in an indexed journal. Writing has been made mandatory for promotions in certain departments, so the clinicians are more inclined to publish. Often, we note that we (Indian Journal of Orthopaedics) receive more articles from China, Turkey, and South Korea (abroad) instead of from our own country though the journal is an official publication of Indian Orthopaedic Association. Therefore, we have decided to encourage more and more publications, especially from our own country. For that reason, we have decided to educate our members by publishing an editorial on "How to write a paper?," which is likely to be published soon. In one of our last editorials, we discussed indexing. In this issue, we will be discussing the plagiarism. In forthcoming issues, we are planning to discuss "Ethics in publication," How to write Introduction, Materials and Methods, Results, Discussion, Referencing, Title, Abstract, and Keywords, and then how to write case report which is acceptable. The editorial team tries to help out our readers, so that their hidden instinct of writing their own work could be made true.

## **DEFINITION OF PLAGIARISM**

Plagiarism is derived from Latin word "*plagiarius*" which means "kidnapper," who abducts the child.<sup>1</sup> The word plagiarism entered the Oxford English dictionary in 1621. Plagiarism has been defined by the Encyclopedia Britannica as "the act of taking the writings of another person and passing them off as ones own."<sup>2</sup> It is an act of forgery, piracy, and fraud and is stated to be a serious crime of academia.<sup>3</sup> It is also a violation of copyright laws. Honesty in scientific practice and in publication is necessary. The World Association of Medical Editors<sup>4</sup> (WAME) defines plagiarism as "... the use of others' published and unpublished ideas or words (or other intellectual property) without attribution or permission and presenting them as new and original rather than derived from an existing source."

In 1999, the Committee on Publication Ethics (COPE)<sup>5,6</sup> defined plagiarism as "Plagiarism ranges from the unreferenced use of others' published and unpublished ideas including research grant applications to submission under new authorship of a complex paper, sometimes in a different language. It may occur at any stage of planning, research, writing or publication; it applies to print and electronic versions."

#### FORMS OF PLAGIARISM

- Verbatim plagiarism: When one submits someone else's words verbatim in his/her own name without even acknowledging him publically. Copy and paste from a published article without referencing is a common form of verbatim plagiarism. Most commonly, it is seen in introduction and discussion part of manuscript<sup>2.7</sup>
- Mosaic plagiarism: In this type of plagiarism each word is not copied but it involves mixing ones own words in someone else's ideas and opinions. This is copying and pasting in patchy manner<sup>2</sup>
- Paraphrasing: If one rewrites any part/paragraph of manuscript in his/her own words it is called paraphrasing. Paraphrasing is a restatement in your own words, of someone else's ideas. Changing a few words of the original sentences does not make it your writing. Just changing words cannot make it the property of borrower; hence, this should be properly referenced. If it is not referenced, it will amount to plagiarism
- Self plagiarism: "Publication of one's own data that have already been published is not acceptable since it distorts scientific record."<sup>1</sup> Self-plagiarized publications do not contribute to scientific work; they just increase the number of papers published without justification in scientific research.<sup>8</sup> The authors get benefit in the form of increased number of published papers.<sup>8</sup> Self plagiarism involves dishonesty but not intellectual theft.<sup>9</sup> Roig<sup>10</sup> gave classification of self plagiarism and divided it into four types: (i) Duplicate (redundant) publication, (ii) augmented publication, (iii) segmented publication, and (iv) text recycling.
  - i. Duplicate publication: When an author submits identical or almost identical manuscript (same data, results, and discussion) to two different journals, it is considered as duplicate (redundant) publication.<sup>9</sup> As per COPE guidelines, this is an offense and editor can take an action as per the COPE flowchart
  - ii. Augmented publication: If the author adds additional data to his/her previously published work and changes title, modifies aim of the study, and recalculates results, it amounts to augmented publication. Plagiarism detection software usually do not pick it because it is not same by verbatim. This self plagiarism is as such technical plagiarism and is not considered with same strictness

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as plagiarism. The editor may consider it for publication in the following three situations: If author refers to his/her previous work; if 'methods' cannot be written in any other form; and if author clearly states that new manuscript contains data from previous publication<sup>10</sup>

- iii. Segmented publication: Also called "Salami-Sliced" publication. In this case, two or more papers are derived from the same experimental/research/ original work. Salami-sliced papers are difficult to detect and usually are pointed out by reviewers or readers. The decision regarding such manuscript is again on editor's shoulder. The author must be asked to refer to his/her previously published work and explain reasonably the connection of the segmented paper to his/her previously published work
- iv. Text recycling: If the author uses large portions of his/her own already published text in his/her new manuscript, it is called text recycling. It can be detected by plagiarism software. It can be handled as per the COPE guidelines.
- Cyber plagiarism: "Copying or downloading in part or in their entirety articles or research papers and ideas from the internet and not giving proper attribution is unethical and falls in the range of cyber plagiarism"<sup>2</sup>
- Image plagiarism: Using an image or video without receiving proper permission or providing appropriate citation is plagiarism.<sup>7</sup> "Images can be tampered on support findings, promote a specific technique over another to strengthen the correctness of poorly visualized findings, remove the defects of an image and to misrepresent an image from what it really is"?<sup>11</sup>

## How to DETECT PLAGIARISM?

It is generally difficult to detect plagiarism, but information technology has made available few websites which can detect/catch plagiarism. Few of them are www.ithentical. com, www.turnitin.com, www.plagiarism.org, etc.<sup>12</sup>

Besides this, learned and watchful reviewers and readers can detect it due to his/her familiarity with published material in his/her area of interest.

## How to Avoid Plagiarism?

Practice the ethical writing honestly. Keep honesty in all scientific writings. Crediting all the original sources. When you fail to cite your sources or when you cite them inadequately, you commit plagiarism, an offense that is taken extremely seriously in academic world and is a misconduct. Some simple dos and don'ts $^5$  are outlined in Table 1.

In the following situation, permission is required to use published work from publisher to avoid plagiarism.<sup>8</sup>

- Directly quoting significant portion of a published work. How much text may be used without approaching publisher for permission is not specified. The best approach is whenever in doubt, ask for permission
- Reproducing a table
- Reproducing a figure/image.

## How to Deal with Plagiarism

Plagiarism is considered academic dishonesty and breach of ethics. Plagiarism is not in itself a crime but can constitute copyright infringement.<sup>7</sup> In academia, it is a serious ethical offense. Plagiarism is not punished by law but rather by institutions. Professional associations, educational institutions, and publishing companies can pose penalties, suspensions, and even expulsions of authors.<sup>7</sup>

As per the COPE guidelines, "If editors suspect misconduct by authors, reviewer's editorial staff or other editors then they have a duty to take action. This duty extends to both published and unpublished papers. Editors first see a response from those accused. If the editors are not satisfied with the response, they should ask the employers of the authors, reviewers, or editors or some other appropriate body to investigate and take appropriate action."<sup>6</sup>

If the editor is satisfied that the act of plagiarism has taken place, minimum he should do is "reject" the manuscript if it is in different stage of editorial process and "retract" if it is already published.

To conclude, we must increase awareness about plagiarism and ethical issues among our scientists and authors. We must be honest in our work and should not violate copyright

Table 1: Dos and don'ts of plagiarism
Attribute references
Describe all sources of information
Give acknowledgment
Provide footnotes
Use quotation marks wherever required
For extensive quotations, obtain permission from the publisher/ copyright holder of original work
Widely known scientific and historical facts - generally counted as common knowledge and does not require citation
Avoid self-plagiarism by taking permission from publisher/copyright holder of previous article

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law. There should be serious steps against authors, which should bring disrespect to author and even loss of his academic position.

We will end it by quote of Albert Einstein "Many people say that it is the intellect which makes a great scientist, they are wrong, it is the character."

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#### Author Help: Online submission of the manuscripts

Articles can be submitted online from http://www.journalonweb.com. For online submission, the articles should be prepared in two files (first page file and article file). Images should be submitted separately.

1) First Page File:

Prepare the title page, covering letter, acknowledgement etc. using a word processor program. All information related to your identity should be included here. Use text/rtf/doc/pdf files. Do not zip the files.

2) Article File:

The main text of the article, beginning with the Abstract to References (including tables) should be in this file. Do not include any information (such as acknowledgement, your names in page headers etc.) in this file. Use text/rtf/doc/pdf files. Do not zip the files. Limit the file size to 1 MB. Do not incorporate images in the file. If file size is large, graphs can be submitted separately as images, without their being incorporated in the article file. This will reduce the size of the file.

3) Images:

Submit good quality color images. Each image should be less than 4096 kb (4 MB) in size. The size of the image can be reduced by decreasing the actual height and width of the images (keep up to about 6 inches and up to about 1800 x 1200 pixels). JPEG is the most suitable file format. The image quality should be good enough to judge the scientific value of the image. For the purpose of printing, always retain a good quality, high resolution image. This high resolution image should be sent to the editorial office at the time of sending a revised article.

#### 4) Legends:

Legends for the figures/images should be included at the end of the article file.