

Role of the Editor in Limiting Plagiarism or Similarity in Scholarly Journal Manuscripts

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ABSTRACT

This brief communication is the outcome of the prevailing confusion and the role of editors of several prestigious journals published in India in different disciplines of science and social science including the discipline of library and information science. These journals use different Plagiarism Detection Tools (PDTs) or Plagiarism Detection Software (PDS) to assess the similarity score of the submitted manuscript. These PDTs are helpful to avoid questions raised on the academic integrity of the submitted manuscript. For every submission, the editor of the journal generates a similarity report and communicates the results of the similarity index to the scholars verbatim. It is not judicious for the editor of the journal to simply rely on the percentage of similarity index suggested by the PDT. Human intervention is required to rule out the facts by a thorough inspection of every single matching. Also, an acceptable percentage of similarity for a manuscript needs a critical analysis. Based on the set guidelines of the academic regulatory bodies, an acceptable percentage of similarity for a manuscript is considered as minor or level 0 if it is 10%. The present communication draws attention towards this malice as a lot of time of the author/scholar is devoted to incorporate small changes which do not serve any useful purpose to the manuscript and the journal.

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INTRODUCTION

Plagiarism has become a buzzword in research and higher education these days. “What constitutes plagiarism” is a major confusion among the scholarly community. Several authors have defined plagiarism. What these definitions have in common is copying from the other documents? For instance, Boisvert and Irwin^[1] define plagiarism as “the verbatim copying, near-verbatim copying or purposely paraphrasing portions of another author’s paper”. He further states that “cutting and pasting digital content has become so natural that it is easy to forget whose work we have manipulated”. Velmurugan and Radhakrishnan,^[2] define plagiarism “as the adoption of another person’s ideas without giving proper credit”. Wager^[3] describes plagiarism as “unattributed use of large portions of text and/or data, presented as if they were by the plagiarist”. Helgesson and Eriksson^[4] state plagiarism as a serious form of research misconduct when authors copy text, ideas or images from another source, and take credit for it”.

The problem of plagiarism has increased globally in recent times due to the increased use of Information and Communication Technology (ICT) in writing manuscripts.^[5] To keep a check on plagiarism, higher educational institutions, scholarly publishers, funding agencies, and accreditation bodies have made policies and guidelines for academic integrity, code of academic conduct, and research ethics, which have forced researchers to maintain the guideline checkpoints during any research. For instance, The University Grants Commission (UGC), the governing body for the Indian university system, introduced Academic Performance Indicator (API) and Performance Based Appraisal System in 2010 to maintain standards in terms of quality education and research.^[6] However, the regulation resulted in sharp growth of papers published in predatory journals, because the regulation also gave weightage to papers published in non-refereed journals. According to a *BMC Medicine*^[7] report, from about 53,000 in 2010, the number of papers published in predatory journals increased to 420,000 in 2014. This forced the UGC to modify the API in 2016. According to the revised API, it was ensured that papers are not published in shady journals and UGC will bring out a list of peer reviewed national and international journals, where publications can be made.^[8] To check the menace of plagiarism and similarity, the UGC promulgated a regulation on “Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions 2018”.^[9] The regulation mandates passing every research output through a plagiarism detection tool or software



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before being accepted for the award of a research degree or for publication. Based on the recommendations of “Sub-Committee, National Steering Committee (NSC) of e-ShodhSindhu, The Ministry of Education (Government of India)” has initiated a programme “ShodhShuddhi” which provides access to “Plagiarism Detection Software (PDS)” to 1000 + universities/institutions in India since September 1, 2019.^[10] Under this initiative, Ouriginal (formerly Urkund) a Web Based Plagiarism Detection Software system is being provided to all users of universities/intuitions in the country. This initiative was formally launched on September 21, 2019, by “The Ministry of Education (formerly MHRD)”. Not only UGC but other funding agencies like “The Indian Council of Medical Research (ICMR)”^[11] and “The Council of Scientific and Industrial Research (CSIR)”^[12] have also formulated policies and guidelines on research integrity and publication ethics. The “Office of Principal Scientific Adviser (PSA)” to the Government of India has also drafted a National Policy on Academic Ethics.^[13] At a global level, the COPE (Committee of Plagiarism Ethics) is also promoting publication ethics and is trying to bring out a culture of “ethical practices” among academic organizations, and research institutes.^[14] Highlighting the need for proper training for the editors, and as an extension of the resources of COPE, it has been further articulated clearly in a flowchart.^[15]

Keeping in view the above-discussed regulations, universities and editors of scholarly journals published in India have started using globally standardized plagiarism detection tools since 2014. Licensed software Plagiarism Detection Tools (PDTs) being used by different agencies/institutions in India are iThenticate, Turnitin, and Ouriginal (formerly Urkund). These PDTs have their own strengths and limitations. Besides commercial PDTs, some open-source (free) PDTs are also available. However, due to a small number of indexed sources of these tools, researchers are not showing interest in their use. For a list of open-source and proprietary/commercial plagiarism tools, readers can refer to Singh.^[16]

REVIEW OF LITERATURE

Several studies have been reported in the literature on different aspects of plagiarism and similarity. Debnath^[17] has discussed what plagiarism is, its types, and made some suggestions to overcome this problem for authors and editors. Tripathi and Patel^[18] have cited several studies that list factors that influence the attitude and behaviour of researchers towards plagiarism. Baskaran, Agarwal, and Panner Selvam^[19] *et al.* analysed 77 highly cited andrology articles for their similarity index using iThenticate and Turnitin. The articles were categorised based on the year of publication (before and on/after 2000) and type of publication (review and research articles), and the similarity indices were compared. Based on the level of similarity, the analysed articles were categorised into four categories. These were (low: ≤ 10 , moderate: 11-20, high: 21-50, and very high: > 50). The

study revealed “a higher percentage of the similarity indices for reviews than research articles and a higher similarity index for articles published on/after 2000 than those published before. The majority of the influential articles in the field of andrology showed a low similarity index, while some articles exhibited moderate to high levels of similarity”. Rowher^[20] *et al.* examined plagiarism in 495 articles published in 100 African medical journals. The study found that “plagiarism was more common in the introduction and discussion section”. The study also found that 90% of the papers included in the study had an Overall Similarity Index (OSI) of 30% or less and the median OSI was 15% with a minimum of zero percent and a maximum of 68%. Other studies have described the use of different types of PDTs and their limitations. For instance, Kale^[21] in his study mentions that a doctoral thesis submitted to Sant Gadge Baba (SGB) Amravati University (Maharashtra) on nanotechnology application when checked using Ouriginal (formerly Urkund) anti-plagiarism tool found a 6% similarity index, while the Turnitin for the same thesis found zero percent similarity index. In another study, Tejani^[22] argues that he scanned a paper downloaded from Research Gate for checking its similarity index using Ouriginal (formerly Urkund) and Turnitin software tools. He found that both software packages resulted in different similarity index reports. “Ouriginal gave only a 5% similarity index and Turnitin resulted in a 90% similarity index for the same paper”. (*This is based on information from an interview on the Research Gate platform*). Such different results by different PDTs create confusion in the scholars’ minds. Weber-Wolff^[23] found several anomalies in the similarity analysis reports developed by a PDT. She states that “the analyses produced by the PDT are hard to interpret, and navigate and often generate false similarity for the texts. Common phrases, names of the journals/institutions, generic names, standard tools and techniques, equations, theorems, scientific terms, bibliography, etc. may lead to a higher similarity index”. Meo and Talha^[24] also support this argument and describe Turnitin as a tool that provides an overall similarity index in a document with previously electronically published documents, the internet, web sites, etc. Rowell^[25] *et al.* also describes Turnitin as “a text-matching tool” and not “plagiarism detection software”. It electronically checks the similar text of submitted material against web contents, its database of academic publications and earlier submitted documents. According to Gondivkar, Sarode, and Gadbaile^[26] *et al.* “In the field of medicine, the methodology remains the same for certain types of studies like immunohistochemistry, biochemical investigations, epidemiological surveys, including bibliometrics, a field of study not related to medicine. Besides methodology, some definitions proposed by organizations like the World Health Organization or well-known authors also remain the same”. As mentioned above, in bibliometrics too, the definition of several bibliometric indicators like citation per paper or relative citation impact or h-index or papers not cited, etc. as well as the text in the abstract also remains unchanged. However, the editor of journals includes

all the above-mentioned text in the similarity index, resulting in a high percentage of similarity index.

The above review of the literature indicates that no study has been reported in the literature which examines the role of editors and hence suggestions have been laid upon about what is to be included in calculating the overall similarity index. However, in an editorial, Gondivkar, Sarode, and Gadbaile^[26] *et al.* mention that the editors of the journals shouldn't act upon the similarity index provided by the PDTs. Editors of the journal should carefully check the manuscript what has been marked as similar and should it be included in the similarity index, because common phrases, names of the journals/institutions, generic names, standard tools and techniques, equations, theorems, scientific terms, bibliography, etc. may result in higher similarity index.

Comprehending research ethics, human intervention, and drafting a clear policy for Plagiarism for every journal is essential to check the similarity. The COPE (Committee of Plagiarism Ethics) emphasized well-structured most importantly transparent policies for plagiarism, prompt response to respond, and answering the author's doubt or if the literature submitted is to be revised.^[14] If the editor meticulously examines the text and does not include keywords, the title of the paper, name of the journal or the website of the journal, or name of the author(s) or name of institution(s), bibliographic details of the papers or common phrases, generic names, standard definitions, and techniques, equations, theorems, scientific terms, etc. as similar, it could result in reducing the overall similarity index. Also, self-cited text in the paper should not be used as similar, because the authors cite these papers either in methodology or in the review of the literature and the results and analysis section in support of the findings of the study, further reducing the overall similarity index. This will help the editor as well as the author, because the editor would not ask the author to reduce the similarity index.

CONCLUSION

The communication presents the use of different PDTs in India used in the detection of similarity indices in scholarly manuscripts submitted to journals. The communication lists different PDTs used in India and their limitations and strengths. The editor of the journal is just like the doctor who entirely does not depend on the test reports of a patient and uses his/her wisdom about the accuracy of the report. It is imperative to state that PDTs are useful but needs a concrete policy to be drafted by editors of the journals to remove the prevailing ambiguity in the similarity results produced by different PDTs. On the other hand, before deciding the extent of overall similarity, editors should also use their judgment to make a final decision about the quantum of the overall similarity index rather than solely depending on the percentage of the PDT used in examining the manuscripts. Manual intervention is needed by the editor to exclude the title of the paper (s), name of the website of the journal, authors or

institutions, bibliographic details of the papers or headings or sub-headings or footnotes, bibliographical sources, quotations, or matching sources, the definition of several bibliometric indicators like citation per paper or relative citation impact or h-index or papers not cited, besides keywords, etc. Besides these, editors should not include individual key words like 'is' or 'was' or 'to' or 'and' or 'methodology', etc. in similarity indices. "Besides the amount of text that is copied, the editor should consider how it was referenced, whether the deception was intentional or not, as well as whether the copied text is a commonly used or an original phrase."^[27] To promote academic integrity, it is necessary for the editor of journals to meticulously judge the plagiarized content before forwarding it to the author(s). The relevance of this study has implications for other countries also. The editorial judgment cannot merely be driven by the similarity reports generated by different plagiarism detection tools. This is the central argument of this paper.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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