

Turnitin: Is it a text matching or plagiarism detection tool?

ABSTRACT

The institutional integrity constitutes the bases of scientific activity. The frequent incidences of similarity, plagiarism, and retraction cases created the space for frequent use of similarity and plagiarism detecting tools. Turnitin is software that identifies the matched material by checking the electronically submitted documents against its database of academic publications, internet, and previously submitted documents. Turnitin provides a “similarity index,” which does not mean plagiarism. The prevalence of plagiarism could not reduce tremendously in the presence of many paid and un-paid plagiarism detecting tools because of the assortment of reasons such as poor research and citation skills, language problems, underdeveloped academic skills, etc., This paper may provide an adequate feedback to the students, researchers, and faculty members in understanding the difference between similarity index and plagiarism.

Key words: Plagiarism; similarity index; Turnitin

Introduction

The mechanism of broadcasting the scientific knowledge has experienced paradigm shift. Research publications have become an essential component of an academic promotion, research grants, innovative ideas, institutional growth, and eventually the economic and country development. Because of the lack of knowledge of similarity and plagiarism and for achieving an additional professional targets scientific misconduct has been slinked in the academic institutes. The research misconduct defined as “fabrication, falsification or plagiarism in writing, reviewing, or in reporting the research results.”^[1] Academic plagiarism is increasing globally, which is a serious threat on academic integrity. Institutional pressure to publish, inappropriate training in principled scientific writing, ignorance, misunderstanding, and lack of constitutional controls and clear policies to deal with scientific misconduct in academics have led to increase research misconduct.^[2]

In 1997, an internet based tool called “Turnitin” was established by iParadigms LLC. The Turnitin parent company “iParadigms LLC” also recognized a similar software service for books, newspaper editors, and magazine called “iThenticate.” The other similar types of tools included “Turnitin Suite” “GradeMark,” and “PeerMark.” The popularity of Turnitin has been expanded in academic institutions throughout the world. Turnitin tool checks the contents of any documents for its association with original contents. It identifies the similarities to existing sources of the original contents of the documents. Its prime role is to evade the plagiarism and improve the integrity of the academic institutions.


High morals are equally important in medical and other disciplines. In biomedical research, ethics are very important where the element human is involved.^[3] Similarly, in other disciplines such as natural Sciences^[4] and Arts and Humanities, principled issues are addressed in terms of plagiarism.

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Plagiarism derives from the Latin word “plagiarius” that refers to abducting or kidnapping. Plagiarism is the presentation of the thoughts or work of another under own name,^[5] whereas citing the titles of papers will be detected as a similarity such as book titles or bibliographies, references and quotes, common phrases and constructs, etc. Some well-known kinds of plagiarism are briefly defined in the Table 1.^[6]

The researchers and students frequently visit the various search engines as research tools and think cutting and pasting as an easy way of conducting the research.^[7,8] Knowingly or unknowingly, they do misconduct that ultimately damage the integrity of the individuals and institutions. In general, plagiarism is not intentional or deliberate cheating, e.g., it can be because of certain reasons such as lack of interest in the subject, lack of research skills, fear of failing, procrastination, and/or poor referencing skills.^[9,10] Chaudhuri^[11] defines the plagiarism as “an unfair use of somebody else’s work without giving credit for it. It is necessary to cite and acknowledge the sources even if those ideas are paraphrased and re-written with different words.” The newly entered students to higher education are often faced with such problems because of unawareness about academic culture, environment, and dignity. Therefore, it creates a space between skills of the individuals and expectations of the institutions.^[12] The possible reasons of plagiarism are elaborated in the Table 2.

The present paper highlights the pros and cons of an educational resource which is “electronic text matching tool” and the most widely used tool, *Turnitin*. The Gill Rowell dismisses the myth that Turnitin is a “plagiarism detection software and clarifies the contribution that Turnitin can and cannot make to the detection and prevention of plagiarism.” In this study, we explore the misconception which is calling Turnitin “a plagiarism detection software.” It will be quiet sensible to recall it as “a text-matching tool” that electronically checks the similar text of submitted material against web contents, its database of academic publication and earlier submitted documents.^[13]

Plagiarism detection is an academic judgment, which is depending on plenty of factors, and only expert academicians can do this job. Turnitin or other similar software’s produce “Originality Reports,” which is then interpreted by a person on the basis of the importance of the findings. Before creating the originality reports, bibliography, quoted material, and small matches (words or percentage) should be excluded. The interpretation of originality reports can be tricky depending on the expertise of the team member. For instance, it is not wise to simply rely on the percentage of similarity index 38%, human intervention is must to rule out the facts by thorough inspection of each single matching. For

example, is it extracted from one source or gathered many small portions from different sources? Is it 38% extracted from methodology or discussion section? It is also relevant to see that all the matching portions are correctly cited to display the source.^[13] Sometimes Turnitin matches your own (same) paper and shows the similarity index more than 90%; in this case, you have to analyze the originality report thoroughly by checking each and every single matched source. If it is verified that the matched source is your own paper itself, then this paper should be excluded from the originality report using given options. It is wise to select “no repository” option in “edit assignment settings” before creating new originality reports to avoid this problem. Using this option will not save the papers submitted to Turnitin database. The Table 3 presents various features of originality report, whereas Table 4 illustrates the color scheme with respect to percentages of similarity index.

Safe percentages

There are no sharply defined rules as all work will perhaps carry certain words from other sources. The percentage

Table 1: Types of plagiarism

Word-for-word plagiarism: “Direct copying of sentence/s from a published document without acknowledgment.”
Paraphrasing plagiarism: “Words or syntax are changed (rewritten) but the source text still be recognized.”
Plagiarism of secondary sources: “Original sources are referenced or quoted but obtained from a secondary source.”
Plagiarism of the form of a source: “Structure of an argument in a source is copied (verbatim or rewritten).”
Plagiarism of ideas: “Reuse of an original thought from a source text without dependence on the words or form of the source.”
Plagiarism of authorship: “Direct case of putting own name to someone else’s work.”

Table 2: Why do researchers plagiarise?

Poor research skills
Poor time management
Poor knowledge or ability to write assignments and/or research papers
Problems of writing in a second language
Poor citation skills
Poor guidance
Poor knowledge of what constitutes plagiarism or academic integrity
Over-emphasis on promotions

Table 3: Originality report

Highlights matched sentences and phrases
Provides links to the original source
Indicates overall percentage of the matched text material “similarity index”
Turnitin does not determine whether a paper has or has not been plagiarized
Color coding assists in interpretation
Academic judgment must be applied in interpreting the originality reports

varies from university to university, however, a considerable percentage would be anything above 25% (Yellow, Orange, and Red). It is essential to understand that the “Similarity Index” is NOT a “plagiarism index”; there is no percentage that is characteristically “good” or “bad.” However, 0% (an authentic result) does not essentially mean that all is “OK” with the paper, and 75% (high similarity text) does not certainly mean that the researcher should flunk. Academic judgment (human intervention) is must to evaluate the originality report and to rule out the true plagiarism, if persists. The originality reports are solely tools to uncover potential sources of plagiarism or text, which could have been erroneously cited. There are a large number of uses for the Turnitin tool. Students frequently practice it to check the papers for missing citations, and faculties use the Turnitin to check the plagiarism in students’ assignments, master/PhD theses, manuscripts, etc. If plagiarism suspected, better to discuss with concerned student, researcher, or faculty member first because researcher could be the victim of someone. Be a smart enough to look at the report and decide what is going on here? A hotchpotch of tips to avoid plagiarism is described in the Table 5.

It is essential to understand the difference between two elements – Similarity and Plagiarism. An example is incorporated to understand this dilemma. It is obvious from the Figure 1 that there are many words, abbreviations, names of the tests, diseases etc., one cannot change or paraphrase

Table 4: Interpreting results according to the originality report






0%	Blue image	
1-24%	Green image	
25-49%	Yellow image	
50-74%	Orange image	
75-100%	Red image	

Table 5: Ten tips to avoid the plagiarism using the Turnitin tool

- Teach the skills to understand the meaning of the sentence (s)
- Write the sentence/s in your own words without disturbing the actual meaning.
- Enables to acknowledge the original sources including idea, text, and diagrams.
- Teach how to use quotation marks where needed
- Keeps the sources in correct context
- Educates the abilities of summarizing and paraphrasing
- Educate skills of critical analysis and interpretation
- Educate skills of referencing and citation
- Properly acknowledge and cite the original reference
- Monitor, detect, and respond to incidences of possible plagiarism

them and has to write the sentence/s as it is. In this case, the Turnitin shows 64% similarity index, which does not mean plagiarism. It means that 64% of your work is matched with already published work, this may include billions of pages available on internet, which does not qualify as plagiarism.

Clanton^[14] argues that unless academic dishonesty is reasonably suspected, it is ethically problematic to necessitate submission through plagiarism detection services such as Turnitin because of multiple reasons. The plagiarism detection tools cannot identify each and every occurrence of plagiarism because their databases are not complete,^[15,16] but these tools are increasing their capability for detecting and deterring plagiarism.

Conclusion

Scientific integrity is the main concern of the global research community. That is why many plagiarism prevention tools are introduced for the ease of researchers to check the originality of their work before publishing the document(s). Many ethical committees and code of ethics have been introduced to avoid plagiarism and deal with misconduct cases at institutional levels. Various universities and research institutes have established their rules and regulations to avoid the plagiarism and misconduct issues. Plagiarism prevention is essential to appropriately admit to the contributions and scientific inventions introduced by other persons. Honoring and crediting individual work who really deserve rather than misleading the persons who read it to wrongly consider that the work belongs to another individual. Therefore, it is pertinent for students, researchers, and faculty members to comprehend that the Turnitin is not a plagiarism detection tool, but it is a text matching tool that provides the similarity of the document/s with already published work, which is the foremost purpose of this paper. To avoid misconducts and its consequences,

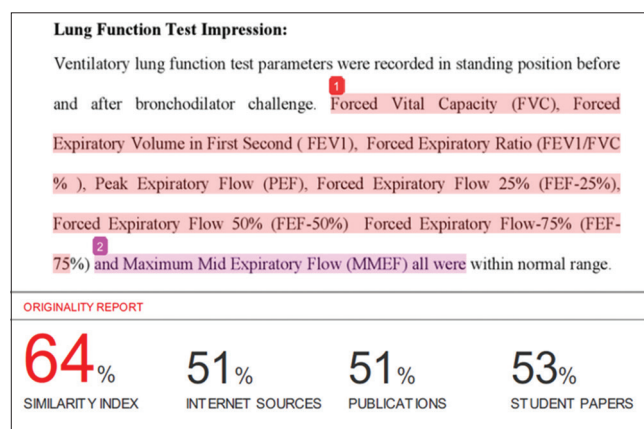


Figure 1: Example of an originality report presenting the similarity index

one should acknowledge the work of other persons appropriately by properly referencing and citing it.

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Author's contributions

SAM: Writing and reviewing the manuscript, MT: Conceived, literature search, and writing and reviewing a draft.

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Conflicts of interest

There are no conflicts of interest.

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