Overview of Plagiarism Checkers and Plagiarism Detection Tools: A Study

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**Abstract**:-

Research is an original and systematic investigation undertaken to discover new facts and Information about a phenomenon. This paper is discussed about the plagiarism, Plagiarism Cheker and Plagiarism detection tools from check research work through software like, Turnitin, Ithenticate, Plagiarism Checker, Viper, Dupli checker, Copy leaks, Paperrater, Plagium, Plagiarisma, Plagscan etc. The present study has use different plagiarism detection tools and checker[2].

KEYWORDS: Plagiarism, Plagiarism checker, Plagiarism detection tools,

**Introduction**

“Plagiarism, the act of taking the writings of another person and passing them off as one’s own. The fraudulence is closely related to forgery and piracy-practices generally in violation of copyright laws.” Encyclopedia Britannica [27].

Plagiarism can be considered as one of the electronic crimes, like (computer hacking, computer viruses, spamming, phishing, copyrights violation and others crimes). Plagiarism defined as the act of taking or attempting to take or to use(whole or parts) of another person’s works, without referencing or citation him as the owner of this work. It may include direct copy and paste, modification or changing some words of the original information from the internet books, magazine, newspaper, research, journal, personal information or ideas [28].

**What is Plagiarism and Plagiarism Checker?**

According to the Merriam-Webster On Line Dictionary, to “plagiarize” means 1)to steal and pass off (the ideas or words of another) as one's own 2)to use (another's production) without crediting the source 3)to commit literary theft 4)to present as new and original an idea or product derived from an existing source.

"Technology has been both a miracle and a curse in terms of plagiarism. No doubt, it has become easier to find the required information and copy it. Since people often do that without attribution, it has also become easier to identify and deal with plagiarism."

With free plagiarism checker tools that can search billions of documents, and find matches even if they are only a few words in length, finding plagiarism has become as easy as detecting information in Google. It is now only a matter of merely processing your query and giving you the results.

"Plagiarism definition is actually straightforward. When you use someone else’s work without crediting them, it is seen as stealing their intellectual property. Just like theft, the penalties for plagiarized work are also severe all over the world. The real problem is that most people are not even aware of what they are doing."

With our plagiarism detector, we strive to spread awareness of plagiarism while letting people know how they can prevent it. You can find countless real-life examples of plagiarism to help you identify it in future.

Our plagiarism tool is a perfect platform to check paper for plagiarism, in order to verify the integrity of its written content. Our article, paper or essay plagiarism checker is trusted by millions of people all over world, who use it daily as a part of their studies or work [1].

**Why Plagiarism Detection is Important**

In some of the academic enterprises like universities, schools and institutions, plagiarism detection and prevention became one of the educational challenges, because most of the students or researchers are cheating when they do the as-signed tasks and projects. This is because a lot of resources can be found on the internet. It is so easy to them to use one of the search engines to search for any topic and to cheat from it without citing the owner of the document. So it is better and must all academic fields they should have to use plagiarism detection soft-wares to stop or to eliminate students cheating, copying and modifying documents when they know that they will be found [28].

**What are the plagiarism detection tools:-**

Plagiarism Detection Tools In the past two decade, several plagiarism detection tools have been developed. Some of these tools are discussed in brief, next. Also, we have analyzed their pros and cons, and reported in a tabular form in Table 2We reported the classification of tools in Figure 4

1. [**Grammarly**](https://www.shoutmeloud.com/grammarly-review.html) **Online Plagiarism Checker:** This is by far the best online Plagiarism checker tool which you can use.  Grammarly is a well-known tool among writers and also who need to quickly check if article is original or copied from other places.

If you are a professor and need to check if the research paper is original or copied from multiple sources online, this tool is perfect for you. See in the above screenshot, how easy it is to use the plagiarism feature of Grammarly.  This is a multi-feature tool for webmasters to check the originality of the content, check Grammar, Check the spelling of the article. I have been using it for a while, and highly recommend it to you.

1. **Unicheck:-** If you are looking for a solid paid option then Unicheck could be the right tool for you. The interface is sleek and it checks the pages really fast. This is a perfect tool for corporates and professors who don’t mind paying a little for higher accuracy.
2. **Safe Assignment [5]:** This anti-plagiarism checker claims to search an index of 8 billion documents available in the Web. It uses some major scholastic databases like ProQuest™, Find Articles™ and Paper Mills during searching and detection process. Safe Assignment maintains a database where user account is essential to keep fingerprints of the submitted documents in order to avoid any legal or copy right problem. This tool uses proprietary searching and ranking algorithms for match detection of fingerprints with its resources. The results of plagiarism detection is presented to the user within couple of minutes.
3. **Docol©c**:This Web based service uses capabilities like searching and ranking of Google API. The submitted document is uploaded to a server and evaluation is done in the server side. The software provides a simple console to set fingerprint (search fragments) size,date constraints, filtering and other report related options. The evaluation result is sent to the user through email identifying plagiarized sections and sources of plagiarism. This is totally Google API dependent and so it may be unavailable at any point of time.
4. **Urkund** [5]:This is another Web based service which carry out plagiarism detection in server side. This is an integrated and automated solution for plagiarism detection. This is a paid service which uses standard email system for document submission and for viewing results. This system claims to process 300 different types of document submissions and it searches through all available online sources. It gives more priority to educational sources of documents more during searching.
5. **Copycatch** [5]:This is a client-based tool which utilizes the local database of documents during comparison. It offers ‘gold’ and ‘campus versions’, providing comparison capabilities against large repository of local resources. It has another Web version which utilizesthe capabilities of Google API for plagiarism detection across the Internet. To use the Web version, user needs personal Google API license through signup.
6. **WCopyfind**[5]:It is an open source plagiarism detection tool for detection of words or phrases of defined length within a local repository of documents. Its extended version has the capabilities of searching across the Internet using Google API to check plagiarism online.
7. **Eve2** (Essay Verification Engine [5][7] :This system is installed in user's computer and it checks plagiarism of a document against Internet sources. It does not contact any online database. It accepts text in several formats but internally converts the input file into text for processing. It presents the user with a report identifying matches found in the Web.
8. **GPSP** -Glatt Plagiarism Screening Program [5]:This system uses different approaches unlike other mentioned services. It finds and uses the writing style of the author(s) to detect plagiarism. This service works locally and itasks the author to go through a test by filling the blank spaces. The number of correctly filled spaces and time taken to complete the test are used to make a hypothesis about plagiarism. This system is basically developed for teachers and it cannot detect source code plagiarism.
9. **MOSS** -a Measure of Software Similarity [8]:This system is used to detect source code plagiarism. This service takes batches of documents as input and attempts to present a set of HTML pages to specify the sections of a pair of documents where matches detected. The tool specializes in detecting plagiarism in C, C++, Java, Pascal, Ada, ML, Lisp, or Scheme programs.
10. **JPlag** [9][5]:It is a Web based source code plagiarism detection tool started in 1997. The tool accepts a set of programs as input to be compared and to present a report identifying matches. JPlag carry out programming language syntax and structure aware analysis to find results. It can detect plagiarism in Java, C and C++ programs. The execution time of this serviceis less than one minute for submissions of 100 programs of several hundred lines each.
11. **Copyscape** [10]:This system takes URL as input and search for copies of a Web page in the Internet. Copyscape helps to find sites that have copied from someone's Web page content without permission. It has both free and premium version and it pushes the free users to buy their premium by limiting the search features.
12. **DOC Cop** [11]:This plagiarism detection system creates report displaying the correlation and matches between documents or between documents and the Web. It is free plagiarism detection system.
13. **Ephorus** [8]:To access this tool, user is to register with the Ephorus site. Hence, no downloads or installation is needed. The search engine compares a text document to millions of others on the Web and reports back with an originality report [12]. This tool can be freely tried but license needs to be purchased. It is well known in many European universities and organization.
14. **ithenticate** [13][8]:This is a successful Web based plagiarism detection tool for any text document. This tool is not required to install in client computer. This application compares input documents against the document sources available on the Web. This well-knowntool is used by most well-knownjournal publishers. It is a easy to use, quick plagiarism checker for professionals. It is designed to be used by institutions rather than personal, but lastly they provided a limit service for single plagiarism detection user like master and doctoral students and this allows them to check a single document of up to 25,000 words.
15. **Plagiarism Detect** [8]:To use this tool, user needs to register by providing correct information. After registration, users are allowed to input text in a given text box oras a file by uploading for analysis. This is a free service which finally sends evaluation report to the user's email account with a list of links from where information are copied. It also specifies amount of plagiarism (in \%) detected. User needs to download and install the software in order to use it.
16. **Exactus** **Like** [14]: This plagiarism detection system is not able to find simple copy-paste plagiarism but also can detect moderately disguised borrowing (word/phrase reordering, substitution of some words with synonyms [14]. To do this, the system leverages deep parsing techniques. This Web based tool supports most of the popular file formats such as Adobe PDF, Microsoft Word, RTF, ODT and HTML. Currently Exactus Like includes about 8.5 million indexed documents. Internally this tool is basically a distributed system and a demo version of this tool is available online.
17. **DupliChecker** [15]:It is a free online plagiarism checker. This tool can be accessed by unregistered user only once, but registered user can check for plagiarism for 50 times in a day. The input file must contain more than 1000 words per similarity search. User can check content's originality by number of ways such as via copy paste, uploading file or by submitting URL.
18. **Plagiarisma** [16]:It is free and simple plagiarism checking tool. This software supports 190+ languages and it does not store any scanned content. The input file can be provided in three ways (1) Copy paste (2) Check by entering URL and (3) Uploading file. However, the tool lacks of advanced features so it cannot be relied for heavy scanning works.
19. **Plagiarism** **Checker** [10]: It was first available in early 2006. This freely available online service uses Google or Yahoo service to check whether documents submitted by students arecopied from Internet material or not. It simply encloses each phrase in quotation marks and inserts an OR between each phrase during checking.
20. **Plagium** [17][6]:This simple plagiarism detection tool, is effective in comparison to many of its counterpart, both in terms of results and algorithm. Though Plagium can be used free to some extent using quick search, their paid version has added benefits such as timeline feature and alert feature which pops up whenever someone's content is plagiarised. This tool has flexibility in pricing option like we can buy search credit either as prepaid plans or monthly plans. This tool allows user to check for plagiarism upto 5000 words without signing up.
21. **PlagTracker** [18]:It is a popular plagiarism checker for students, teachers, publishers and Website owners. It has a large database of academic publications in million and provides detail report of the scanned work. If someone wants to check assignments in bulk, it requires to subscribe monthly. This tool found useful to ensure whether a test document is plagiarized or not.
22. **Quetext** [19]:It uses Natural Language Processing and Machine Learning to detect plagiarism. It performs first internal plagiarism checking and then it goes for external checking. This free tool uses every possible factor for each word to detect plagiarism. It provides support to multiple languages and one can search for unlimited words. To check plagiarism with this tool, one needs just plain copy paste of the text document. The main disadvantage of this tool is that it does not provide detail report. Also it is not user friendly.
23. **Turnitin** [8][20]:This an another successful Web based tool provided by iParadigms. The user is needed to upload test document to the system database for plagiarism check thesystem creates a fingerprint of the document and stores it. In this tool, detection and report generation is carried out remotely. Turnitin is already accepted by 15,000 Institutions and 30 Million Students due to easy to use interface, support of large repository, detailed text plagiarism check and well organized report generation. It can be considered as one of the best plagiarism checkers for teachers.
24. **Viper** [6]:This free plagiarism scanner scans the submitted documents against 10 billion sources and documents present in a computer. It gives peace of mind regarding any accidental plagiarism. This tool offers unlimited resubmitting of documents and it provides links to plagiarised work in the reports.
25. **Maulik** [21]: Maulik detects plagiarism in Hindi documents. It divides the text into n-grams and then matches with the text present in the repository as well as with documents present online. It uses Cosine similarity for finding the similarity score. Maulik is capable of finding plagiarism if root of a word is used or a word is replaced by its synonyms. Thistool is superior than existing. Hindi plagiarism detection tools such as Plagiarism checker, Plagiarism finder, Plagiarisma, Dupli checker, and Quetext.
26. **Plagiarism** **Scanner** [6]:This is a fast and effective plagiarism detection tool for students, instructors, publishers, bloggers since 2008. It is a user-friendly online tool. This tool conducts through an in-detail detection for plagiarism of a submitted document within a few minute only. This tool runs against all Internet resources, including Websites, digital databases, and online libraries (such as Questia, ProQuest, etc). It generates a full report, indicating the overall originality rating and the percentage of plagiarized materials in the submitted text. It also provides customeran opportunity to share plagiarism reports with other people by simply giving them the link, generated by this tool.
27. **Hawk** **Eye** [22]:It is an innovative plagiarism detection system. This uses mobile scanner OCR(Optical Character Recognition) engine into convert image to text and that text it uses as input. The OCR Engine preprocess the clicked image in order to remove noise and disturbance from it and extract relevant keywords from image. The system uses plagiarism detection algorithms to remove unnecessary details like comments and changing variables names. or It uses string matching to detect plagiarism. It considers many limitations of existing well known plagiarism detection tools like Moss, JPlag, and Turnitin.
28. **Code** **Match** [6]:Code Match compares source code and executable to detect plagiarism. It is developed by SAFE(Software Analysis and Forensic Engineering). It has also some additional functionality, which allows finding open source code within proprietary code, determining common authorship of two different programs, or discovering common, standard algorithms within different programs. It supports almost all existing programming languages.
29. **SID- Software Integrity Diagnosis system** [23]:It detects plagiarism between programs by computing the shared information. It uses a metric in measuring the amount of shared information between two computer programs, to enable plagiarism detection and the metric is approximated by a heuristic compression algorithm. SID works in two phases.In the first phase, source programs are parsed to generate token sequences by a standard lexical analyser. In the second phase, Token Compress Figure 4: Classification of Plagiarism Detection Tools. Algorithm is used to compute heuristically the shared information metric d(x; y) between each program pair within the submitted corpus. Finally, all the program pairs are ranked by their similarity distances.
30. **SIM** [24]: This tool is to measure similarity between two C programs. It is useful for detection of plagiarism among a large set of homework programs. This tool is robust to common modifications such as name changes, reordering of statements and functions, and adding/removing comments and white spaces.
31. **YAP3** [25]:YAP is a system for detecting suspected plagiarism in computer program and other text submitted by the students. YAP3 is the third version of YAP which works in two phases. In the first phase, the source text is processed to generate token sequence. In second phase, each token is (non-redundantly) compared against all others strings.
32. **PlagScan** [26]:PlagScan has separate packages for schools, universities and companies. To use this we need a paid account to open. It is not a free service but if someone does not like the service, membership cancellation is possible and money will be refunded.

**Conclusion**:-

In this paper we discuss near about 33 plagiarism detection tools and plagiarism checker software mostly useful in the information era. Information technology, computers are the most important discovery of the 20th century, and with the discovery of internet it became more powerful. Now many things we got online. They are easy to use, anybody can click the button and get the relevant information, but with the advantage of ICT there are some disadvantage also, anybody can use these online information to their documents. To check all this literature theft plagiarism detection software is must for every institutions and Universities.

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