

Research Effort Evaluation Framework

¹Kamlesh Patil, ² Dr. Sandeep B. Vanjale

¹Research Scholar, ²Professor

¹Computer Engineering,

¹Bharati Vidyapeeth Deemed University College of Engineering

ABSTRACT

Research progress uplifts human living bring easiness and rich living experience. Today large amount of research scholars and individual at various levels are dedicated to research domain. Evaluating this efforts which require to be true in scientific society progress is major challenge faced today. In current state many scholars in order to achieve higher payscale present falsifying efforts . identification of this act would require a complete Research effort evaluation framework . this research project highlights the need of such research effort evaluation framework which could be deployed at universities to compute student effort.

This article gives big picture of what is required to be done and focusing on common evaluation techniques like plagiarism analysis . Plagiarism analysis is commonly used techniques to detect any falsifying effort of scholar . current limitation of this techniques are they are singular either text plagiarism , code plagiarism , image plagiarism detection ,which require a integrated module to developed at academic level.

This research effort evaluation framework is an idea proposed and would require years of development, as currently only content based analysis is done , future an idea based system would be areal step towards complete research effort evaluation framework.

IndexTerms – Plagiarism Detection, Research Effort Evaluation, falsifying research effort, research effort, framework

I. INTRODUCTION

Student cheating has garnered much public attention recently. A perception reflected in media accounts is that acts of academic dishonesty among students in college as well as high school have increased sharply. The cover of the November 22, 1999 issue of *U.S. News & World Report*, for example, announced that “a new epidemic of fraud is sweeping through our schools” (“Cheating, writing, and arithmetic,” 1999). Nearly universal access to the Internet has been cited as a reason for this perceived decline in academic integrity, in particular regarding plagiarism. A July 6, 2001 article in the *Chronicle of Higher Education* reported that “several indicators point to widespread plagiarism on campus,” and that “officials at some colleges say that in recent years they have seen a sharp increase in students cutting and pasting material into papers from Web sites without attribution, or purchasing term papers from online term-paper mills”. Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit and usually claiming it to be one’s own (1-5). In the scientific community, plagiarism is undoubtedly present, although it is contradictory to basic scientific principles (6,7). It is useless, meaningless, unethical, and forbidden. Plagiarism is a complex and long standing problem (1,8,9). There were well documented cases of plagiarism in the scientific community even 200 years ago (10). The concerns about source code plagiarism increasingly rose since 1977. A survey performed in 2002 on a sample of students at Monash and Swinburne universities shows that 85.4% of 137 Monash University students and 69.3% of 150 Swinburne University students admitted to having engaged in academic dishonesty, [2].

The assessment of students’ programming submissions has an important effect on the whole computing educational procedure. It is of a great importance to evaluate the programming skills of each student, but the evaluation results become misleading and unreal due to the plagiarism problem. There is a long history and a wealth of experience of tackling plagiarism in North American colleges and universities, which have used a variety of approaches based on prevention through education and intervention and punishment for violations. An institutional approach to dealing with plagiarism by students should set plagiarism clearly into context as a breach of academic integrity, frame it as inappropriate and unacceptable behaviour rather than criminalizing it, embed it into the academic rules and regulations and promote it throughout the institution. An enlightened and positive approach would place the emphasis on prevention and education, backed up by robust and transparent procedures for detecting and punishing plagiarism. If successful, such an approach would create a level playing

field on which staff and students can operate, to the benefit of all stakeholders. The key criteria in evaluating the usefulness of such an institutional framework are transparency, appropriateness, fairness and consistency. Many other examples of text reuse surround us today, including the creation of literary and historical texts, summarisation, translation or revision of existing texts. Many factors influence text reuse including translating an original text into a different language, restyling an original to fit different authorial or consumer needs (e.g. rewriting a scientific text to be readable by the layman), reducing or expanding the size of the original text and the competency and production requirements of the writer.

Recent advances in technology are making text reuse much easier. For example, the Google web search engine claims to index over 3 billion web pages¹ providing a large variety of source texts on a diverse range of topics in many different languages. Word processors have also become more sophisticated, enabling users to easily cut and paste, merge and format pre-existing texts from a variety of sources. This, coupled with the change of culture brought about by electronic 'cyber-space' has caused concern to authors surrounding the ownership of their written material. Either the owner (perhaps the publisher) has to protect their texts (e.g. using digital watermarks), rely on finding illegitimate copies, or even de-value their digital content in some way. Mallon (1989) suggests that "the origin and ownership of all electronic documents is now peculiarly evanescent; one click of the 'Save As' button can give a whole new name and identity, instantly, to someone else's creation."

2. LITERATURE SURVEY

Word-for-word plagiarism: direct copying of phrases or passages from a published text without quotation or acknowledgement

Paraphrasing plagiarism: when words or syntax are changed (rewritten), but the source text can still be recognised.

(3) Plagiarism of secondary sources: when original sources are referenced or quoted, but obtained from a secondary source text without looking up the original.

(4) Plagiarism of the form of a source: the structure of an argument in a source is copied (verbatim or rewritten).

(5) Plagiarism of ideas: the reuse of an original thought² from a source text without dependence on the words or form of the source.

(6) Plagiarism of authorship: the direct case of putting your own name to someone else's work

The easiest form of plagiarism to detect and prove is verbatim or word-for-word text reuse (given a possible source text to compare with). This can often be detected using the simplest of automatic methods, but occurrences by students are often due to the fact that they are uncertain as to how to reuse source texts legitimately. Other forms, such as paraphrasing and the reuse of structure can also be identified relatively easily, but get progressively harder as the plagiarist uses more complex rewrites or to hide the original text, or reuses only ideas and not the content. The extreme is ghost-writing: getting someone else to write the text for you. These forms of plagiarism are not just harder to detect, but also harder to prove.

3.1 Plagiarism at academic level

It has been commonly observed that students at academic level are unaware of plagiarism and perform highest level of plagiarism by copying assignments related to code and textual which needs to be eliminated. This act stops academic growth of student NULLIFYING his efforts as they are not correct ones.

3.2 Plagiarism at research level

Commonly observed that research scholars to complete their work perform plagiarism at higher level. Detecting this kind of plagiarism is very difficult as patterns of plagiarism detection are higher than other ones.

CONCLUSION AND FUTURE WORK

As such a better system is required to evaluate students and research scholars work effectively. This research highlights a step towards better research with design and development of plagiarism detection system. Upcoming research articles would focus on complete design and algorithmic approach to overcome this problem scenario and present a framework which could be used in student effort evaluation.

References

- [1] Shinn, Mark R., ed. *Curriculum-based measurement: Assessing special children*. Guilford Press, 1989.
- [2] Clough, Paul. "Old and new challenges in automatic plagiarism detection." *National Plagiarism Advisory Service*, 2003; <http://ir.shef.ac.uk/cloughie/index.html>. 2003.
- [3] Potthast, Martin, et al. "An evaluation framework for plagiarism detection." *Proceedings of the 23rd international conference on computational linguistics: Posters*. Association for Computational Linguistics, 2010.
- [4] Scanlon, Patrick M., and David R. Neumann. "Internet plagiarism among college students." *Journal of College Student Development* 43.3 (2002): 374-385.
- [5] K. Deb, S. Agrawal, A. Pratab, T. Meyarivan, "A Fast Elitist Non-dominated Sorting Genetic Algorithms for Multiobjective Optimization: NSGA II," KanGAL report 200001, Indian Institute of Technology, Kanpur, India, 2000.
- [6] Clough, Paul. "Old and new challenges in automatic plagiarism detection." *National Plagiarism Advisory Service*, 2003; <http://ir.shef.ac.uk/cloughie/index.html>. 2003.
- [7] Bilić-Zulle, Lidija, et al. "Prevalence of plagiarism among medical students." *Croatian medical journal* 46.1 (2005).
- [8] Jadalla, Ameera, and Ashraf Elnagar. "PDE4Java: Plagiarism Detection Engine for Java source code: a clustering approach." *International Journal of Business Intelligence and Data Mining* 3.2 (2008): 121-135.
- [9] Mini, G. Pillai. "Experiences of University Libraries in Kerala with anti-plagiarism softwares iThenticate and Turnitin." *Blended libraries and information centres: a blueprint for the development of information profession in India*. Southern Book Star, Thiruvananthapuram, 2015. 279-291.
- [10] Gawali, S. Z., and D. M. Thakore. "EMAS Framework For Text Plagiarism Detection (Evolutionary Multi-Agent System)." *International Journal of Applied Engineering Research* 12.8 (2017): 1584-1590.