

Research Ethics in Computer Science Publications: Critical Studies

Himawan^{1*}, Puput Irfansyah², Fiqih Ismawan³, Intan Mutia⁴, Trinugi Wira Harjanti⁵

¹Computer Science STMIK Raharja Tangerang, Indonesia

²Department of Informatic Unniversitas Indraprasta PGRI, Jakarta, Indonesia

³Department of Informatic Unniversitas Indraprasta PGRI, Jakarta, Indonesia

⁴Department of Informatic Unniversitas Indraprasta PGRI, Jakarta, Indonesia

⁵Information Systems STTI NIIT I-Tech South Jakarta, Indonesia

*Corresponding author. Email: himawanawan10@gmail.com

ABSTRACT

Ethics is one of the attitudes that academics need to have in the world of education. Ethics also has a very important role as a determining philosophy for researchers, especially in the field of computer science, in making decisions about right and wrong. The world of academia seems to be experiencing moral degradation or decline in terms of both teaching and publication of scientific works. The number of scientific violations committed by parties involved in organizing scientific publication publications seems to prove that moral values are no longer important and tend to be ignored. Research carried out in this journal is not a "judgmental" nature of researchers in the field of computer science, but rather to identify what aspects make researchers commit violations in the publication of scientific papers along with the motivation behind these violations. Then the discussion in this paper will also look at the impact of violations committed by researchers. This research also seeks to assist researchers in increasing awareness in minimizing the occurrence of violations of academic values in terms of ethics and morals in the rules of the world of scientific publications both offline and especially online. So that in the end there is an increase in the moral value of each researcher to be accountable for the results of his work to the public and certain communities.

Keywords: *Ethics, Publication, Scholarly work, Publication offense*

1. INTRODUCTION

Research is a process carried out systematically, logically, and empirically to seek scientific truth or to gain scientific knowledge. With research, researchers can carry out research to be able to look for new problems or findings that can be useful for human life in many fields. The field of research that is still very interesting to research if viewed within the last 1 decade is the field of science and technology research. The writing of this research will be more specialized in the field of technology research, especially information technology by specifying in the field of computer science.

Why is the field of computer science still an interesting research subject? The main factor or reason is the needs of the professional industry world and also the academic world which is becoming increasingly dynamic. Based on these factors, the field of computer science or information technology seems to be a new

"trend" in the development of science in the era of globalization and the modern industry. As an academic and also a researcher, scientific writing is a compulsory part that cannot be separated. Lecturers who are also researchers are required not only to conduct teaching or delivery of course material in class but also to carry out 3 aspects or elements of the field which are the pillars of higher education, namely the field of teaching, the field of research, and the field of community service. This field of research is often neglected by teaching lecturers in Indonesia, it can be seen from 2010 to 2016 that the number of international publications by Indonesian researchers is still behind when compared to several neighboring countries in the ASEAN region such as Singapore, Thailand, and Malaysia.

In response to this, the government through the Ministry of Research, Technology and Higher Education (Kemenristekdikti) has a very serious desire to advance and increase the awareness of lecturers in Indonesia to

improve their writing skills and also to publish scientific papers both at the national level and on a different scale. more broadly namely international publications). A form of serious government attention to the number of scientific publications of lecturers in Indonesia is the construction of the Indonesian Indexation and Citation System (SINTA) which was initiated by the Ministry of Research, Technology, and Higher Education and was launched for the first time on January 30, 2017. With the presence of SINTA, the number of scientific papers published by lecturers as well as researchers in Indonesia can easily be searched online anywhere and anytime.

The most visible result of the existence of SINTA is the positive motivation of lecturers and researchers in Indonesia in conducting research and also writing scientific papers both in the form of paper conferences and also in the form of journals. Then, the next positive thing is an increase in Indonesia's ranking in the ASEAN region in the whole of international scientific publications indexed by SCOPUS, beating Singapore and Thailand based on the latest data that researchers got until the end of 2018.

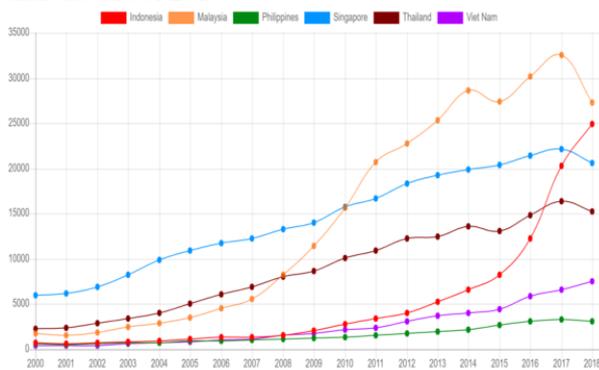


Figure 1 Ranking of the Number of Scientific Paper Publications in the Asian Region Source: SINTA [1].

The positive things that have been written before by researchers are also unfortunately accompanied by several negative things that have been done by lecturers and researchers in Indonesia. On this occasion, the researchers also apologized once again because there was no bad intention at all to demonize or judge fellow lecturers and researchers in Indonesia. The data and facts speak that there are indications and evidence that frauds are occurring in the publication of scientific papers carried out by some lecturers and researchers in Indonesia. These matters will be the main concern and discussion in writing this paper with ethical violations that occur in the publication of scientific papers by lecturers and researchers. Then the researcher will also discuss the factors or motivations that cause ethical violations of the publication of scientific papers in the world of higher education in Indonesia. The following are the main points of discussion in writing this paper related to the types of ethical violations that occur in the publication of scientific papers by some lecturers and researchers:

1. Plagiarism and duplication of scientific papers are still rife.
2. Collaboration manipulation of authors or researchers (co-authorship) in a scientific paper.

3. Publication of scientific papers without the correct peer-review process (Predator Journals).

This paper is divided into several sub-chapters, namely: theoretical basis of computer science research ethics, types of violations of scientific publication publications, research methodology, discussion, and conclusions.

1.1. Research Ethics in the Field of Computer Science

The issue of code of ethics in the field of computer science and information technology research has existed since the early 1980s, this is indicated by the existence of an American institution known as The Institute of Electrical and Electronics Engineers (IEEE) [2]. Returning to the discussion or topic regarding research ethics, this relates directly to all true, wrong, good, and bad research activities or activities, and also touches on the moral aspects of each researcher who is involved either directly or indirectly in the field of computer science research [3]. Then, research ethics is also related to scientific truth that can be accounted for from the research results carried out by lecturers and researchers alike.

The code of ethics in the field of computer science research has a very useful purpose to educate researchers, especially in terms of increasing knowledge on issues that are closely related in the field of computer science and also as a moral foundation for the profession of a researcher [4]. The application of a code of ethics in the field of computer science research is based on Ethical Decision Making Models [4], in which this model is developed and used to analyze problems related to various types of code of conduct violations committed by researchers in the field of computer science. Some examples of violations that are often or rife in both IT professionals and academics (lecturers and researchers) are copyright infringement of an idea, thought, concept, or even piracy of software that is claimed by irresponsible parties [5]. Then for cases of violations in terms of the publication of scientific papers is the manipulation of the author or author written on a paper or journal that will be sent to the journal manager.

A good understanding and understanding of the code of ethics in the world of publication of scientific papers in the field of computer science will provide additional motivation for lecturers and researchers to think and act well and also be positive about the attitudes that should be done or not necessary to avoid the occurrence. violation of ethics of publication of scientific papers. The following are important points related to the ethical code contained in the field of computer science research that every researcher must have and understand properly [6] :

1. Honesty is the main asset that a person must have in conveying data, using research methods, and also in disseminating research results.
2. Objectivity in analyzing data, interpreting data, and assessing the results of a scientific paper.
3. Have integrity in maintaining ongoing or completed research commitments.
4. Open with new things, public presentation of research results. And open to accepting criticism and

suggestions that can be used to improve research to make it even better.

5. Respect the intellectual property rights of other researchers in terms of ideas, thoughts, formulations, and also the results of research that have been carried out so that they do not claim the work of other researchers to be their own because this is tantamount to committing the stealing.
6. Be responsible for the research that is being carried out and can also be responsible for the results of the research, such as having the awareness not to manipulate multiple publications or fabricate the data.
7. Respect colleagues or other researchers by not "attacking" or overly criticizing scientific papers that are in the process of being written or have been published.
8. Avoiding acts of discrimination against fellow researchers or parties who are directly or indirectly involved in the research.

1.1.1. Plagiarism

Actions of plagiarism have become a very frightening thing in the world of higher education as well as among academics. However, plagiarism is not something new or "strange" in the world of education, especially in the world of higher education. Problems related to plagiarism occur in many countries, especially in higher education institutions which require a lot of academicians in it to be involved in the publication of scientific works starting from making papers or reports on ordinary assignments, theses, theses, dissertations, papers, books and also publications journal. Especially with the existence of an internet network that makes it easier to send and share files between one user and another on a computer network, with the internet network, access to digital data and information can be done easily and without limits. Therefore, the field of computer science research is one of the fields of research that provides the largest "contribution" in terms of plagiarism compared to other research fields [7].

Plagiarism is defined by several institutions or publishers as follows:

1. "Take ideas, methods or writing (partially or completely) from someone's work without mentioning or giving credit to the source", (American Association of University Professors)
2. The University of Oxford defines plagiarism as a form or act of presenting the work or ideas of others and recognizing it as the result of one's work, where the action is consciously or unconsciously by the original owner or source.
3. The American Psychological Association (APA) defines plagiarism as a form of effort made by a person in terms of showing the results of other people's thoughts or work as the result of one's thoughts. Where the results of this thought can be partially or completely to be claimed as "their own".

So far, plagiarism has generally been synonymous with the activity of "taking" other people's ideas or writings and then claiming or acknowledging the idea or work as private property without mentioning or mentioning the real identity of the real creator. However, it turns out that the "science" of plagiarism has also developed into several new variations that are still included in the plagiarism category, namely [8]:

1. Duplication of scientific papers.
2. Submission of scientific paper documents in the form of papers or journals to many publishers.
3. Resend scientific papers that have been received and published and then it is said that the paper has never been published before. This is known as self-plagiarism.
4. Inconsistencies in identifying all names of authors (authors or co-authors) involved in research and preparation of scientific papers.

Research proves that plagiarism is one of the highest and most frequent violations of ethical codes in the field of computer science research [8]. One of the most common factors in plagiarism in the field of computer science research is the stealing of scientific papers from other researchers and removing or disguising the identity of the original researcher and turning it into one's work, this is where the ethical role of a researcher in citing or giving credit for real researchers as a form of appreciation or respect for the results of research work that has been done by previous researchers. Because without the proper ethics and understanding to respect the work or ideas of a researcher, plagiarism is included in the act of "stealing" from a work of intellectual property produced by previous researchers. The interesting point for the types of plagiarism that will be the focus of writing and research from this paper is point number 3, namely self-plagiarism.

Where the definition or meaning of self-plagiarism can occur when a researcher has finished writing a scientific paper that has been published in either a paper or journal form, then the paper or journal is reused in his "newest" research repeatedly in the future. Maybe a question like this will arise "then what is the problem with the actions taken by the researcher?" or "where is the fault?". The act of self-plagiarism will produce a sufficient number of "new" journals or papers in a short time, but these scientific works do not have a significant or sufficient contribution. Because there is nothing that has been recently conveyed or written on the papers which are the result of the act of self-plagiarism [9]. The location of the "error" of a researcher's actions in conducting self-plagiarism is more directed at the moral that will happen to a researcher because by doing self-plagiarism, the researcher or scientist is actually "deceiving" himself and also deceiving others by dishonest actions in publishing scientific works which are the results of old research but repackaged in a form as if they were "new" research.

Then the most important question is what underlies or what factors lead researchers to take self-plagiarism. The following is a statement regarding the main factors that cause self-plagiarism among researchers in the form of hypotheses made by researchers based on data, facts, and

also observations made based on valid sources and can be justified:

1. Money, because everything will come back to money which is the root of the main problem. Why money? The answer is very clear and simple because research activities in any field of science certainly require money or funds for research activities. Where the money that is meant here can be obtained from the personal funds of researchers or funding obtained from third parties. The third-party referred to in the last sentence, can mean the campus or university where the researcher is sheltering or an external party (private or government) who wants to provide research funding assistance to researchers to assist the completion of research and research conducted by researchers. Research money that has been obtained by researchers will be one of the sources that make researchers "willing" to commit despicable acts because the money can be misused for things that have nothing to do with the research being carried out.
2. Publicity, this becomes "important" for enough researchers to get attention or attention widely in the field of research and publication of scientific papers. If a scientific work gets enough citation, then by itself the scientific work will have a high Impact Factor (IF). What's more, if the scientific work gets a prestigious award in its field, then the researcher will get even higher attention from other researchers or leading research institutions.
3. Pressure, this is quite interesting to discuss. Why is pressure a factor for researchers to take self-plagiarism? An article written by Shashok [10] explains that in several countries, both developing and developed countries, it is as if it "obliges" researchers to produce an idea or work. Indeed, scientific work is an inseparable part of the life of a researcher, but the obligation that is meant here is the demands or pressure placed on researchers periodically to be able to make research that will be published in the form of scientific papers. In the end, the scientific writing can be produced, but what happens is that the work is often not under the scientific field of the researcher because it is done poorly, namely through research that has been done previously being republished repeatedly using only different titles, but most of the content remains the same and there is no novelty at all. Then the additional problem is that the research has been conducted and published before, but some researchers can "carefully" package it into a "new" study without mentioning the work of previous research that has been made by the same researcher.

1.1.2. Predatory Journals

The term predatory journal became very well known by academics when a librarian named Jeffrey Beall, an associate professor at the University of Colorado, made a very interesting article on his weblog page in 2010. His article contained a list of journals which were considered problematic or have "other" motivations that are oriented only to money and not to science. Then Jeffrey Beall's

writings on his weblog page were also published and widely distributed to researchers and various institutions or universities around the world to become very important information and very useful in identifying various types of characteristics of a journal that are considered suspicious or fall into the category "Predatory journal" [11]:

1. The peer-review process is fast and easy, this is because there is no peer-review process carried out by journal publishers. The peer-review process that is "carried out" is only a camouflage, which shows that each submitted document will be processed according to the "procedure" of each journal manager. This is evidenced by the high acceptance rate (more than 80 percent) for every journal document sent to problem publishers or considered a predatory journal [12].
2. Almost every journal-title will be accepted even though it does not match the scope of the journal because the most important thing is that the researcher is willing to pay a certain amount of money to the publisher if the journal manuscript document is "accepted".
3. Obligated to pay a "publication fee" for researchers or writers, where this fee is camouflaged as a fee used for the peer-review process, certificates (print or digital), administrative fees, and others. Where the determined publication costs vary from cheap (affordable) to high, as if it shows that the journal's publisher is credible and has a high reputation.
4. Minimal or no copy-editing process for any documents accepted for publication online.
5. Publish paper documents or journals that have no relevance to research activities, for example writing personal essays.
6. Does not have a clear editorial and reviewer board structure or sometimes the names of the editors and reviewers that are listed on the journal page are fake or fictitious.
7. Making false confessions or claims related to the value of the Impact Factor (IF) and the indexation system used in journal publishing [12].

The interesting thing is that although there are quite clear and specific criteria regarding predator journals, the use of the term predator journal itself does not have a clear meaning. In the sense that the definition of a predatory journal itself is again only a term used for naming journals or publishers that are considered suspicious or problematic [13], the existence of predatory journals has only been limited to the notion that a journal or publisher has doubts its validity in terms of its implementation or management. On the contrary, the list of predatory journals published by Jeffrey Beall itself is doubtful on validity and accuracy by many researchers and higher education institutions. Therefore, the "standardization" of a journal or publisher can be said to be a predatory journal, but it does not have a clear and strong foundation [13]. Also, with the absence of clear and concrete evidence that says journal a, journal b, or journal c, are journals that fall into the category of predatory journals, this will make an accusation or assumption that these journals are predatory journals, it is

not necessarily possible to verify. In the end, the list of data for the name of the journal is considered more as a "tool" or is taken into consideration by researchers or scientists before finally sending the results of scientific papers to a journal manager or publisher.

The main question is again, "will the presence of a journal that is considered as a predatory journal will bring problems or have an adverse impact?" Jeffrey Beall [14] wrote and explained that predatory journals have a very negative impact among researchers and scientists, and hurt science itself, and will ultimately destroy the ecosystem structure of communication that occurs in the exchange of knowledge that has existed and been built so far. Because predatory journals carry out a process of manipulation and fraud against researchers by using the internet media to publish scientific works of low quality, then that in the end only takes advantage of the "ignorance" of many researchers and only for profit alone regardless of values, ethics of publication of scientific papers.

The existence of predatory journals cannot be fully blamed on their managers. This is because the predatory journal is "created" because of the "need". Predatory journals also use the concept of "supply and demand", which is where there is a high demand or demand, supply will also be created. In this case, the predator journal "plays" in "helping" researchers or scientists who want a fast or instant process in the process of publishing scientific papers. It is well known that he traditional journal publication model by many well-known or reputable computer science journal publishers carries out a very strict selection and acceptance process for each journal document submitted by researchers. Moreover, the high cost of publication is also an obstacle for researchers who do not necessarily have sufficient funds to pay for publication costs if the scientific work that has been submitted is successfully received and ready to be published online by well-known journal publishers. Also, the very long peer-reviewed process time by well-known journal publishers make researchers feel frustrated to wait for uncertainty about the results of the decision of the editorial board or journal manager, this makes researchers divert journal submissions to other journal publishers, which provides various conveniences and also relief in terms of publication costs.

The last factor that also influences the proliferation of predatory journals is the same factor experienced in self-plagiarism by researchers or scientists, namely the high pressure from the institutions where the researchers serve [15]. One of the concerns that these researchers fear is quite reasonable because there are several cases that if a researcher cannot produce a work in the form of a paper or journal within a certain period, the researchers will be considered unproductive or not making a significant contribution to an institution that has provided fees or facilities for these researchers. Because of the compulsion of these pressures, the researchers decided to prefer shortcuts in publishing scientific papers to journal publishers who do not necessarily have a good reputation.

2. METHOD

The essence of the writing and discussion carried out in this paper is to emphasize the ethical violations of the publication of scientific papers in the field of computer science research, namely as described in the previous sub-chapter regarding the act of self-plagiarism and also the publication of scientific papers in predatory journals. For this reason, the use of research methods needs to be done to strengthen and defend the hypothesis made in writing this paper. The research method in finding evidence of ethical violations of the publication of scientific papers will use research heuristics and data collection methods.

Jeffrey Beall was the first to explore and also search for a list of problem journals and publishers in 2008. Then from the search results and also data collection that Jeffery Beall had done for some time, he made a list of journal names and publishers that were considered suspicious and entered into the classification of predator journals. Where the list of problematic journals and publishers is known as "Beall's List", then the list can be found and accessed by researchers, scientists, and even laypeople on the website page <http://www.scholarlyoa.com>. Jeffrey Beall explains in detail the facts about a journal or publisher that can be said to belong to the category of predatory journals or problematic publishers. In the research and writing of this paper, the researchers focused more on the criteria of a predatory journal classified by Jeffrey Beall and added to the results of thoughts and examinations (investigations) on several journals that were considered problematic using the following parameters:

1. Journal name.
2. ISSN observation.
3. The peer-reviewed process is carried out by each publisher or journal manager.
4. Editorial board structure (editorial board and reviewer team).
5. The fee for processing journal documents sent to journal managers is known as Article Processing Charges (APC). Where the cost of this APC is very relative to its nominal size and depends on the "standard" or provisions of each manager or journal publisher.
6. The indexation system is claimed by the journal manager.

Research conducted by Lin [16] uses a more extreme term for predatory journals, namely "junk journals" or in other terms it can also be said to be useless journals. These journals are mostly in the domain of health and medical research fields [16]. Where in essence it is also stated in his research that the junk journals are only oriented towards seeking financial gain and not oriented towards advancing science in the health and medical fields. The interesting thing is that these junk journals have also experienced an increase in the number of publications and the number of publishers, although there are not as many as in India. As surveyed and also written in his research that up to 2011 it was found that there were 9849 junk journals managed by various publishers or higher education institutions in China [16]. Several indicators or parameters are written in Lin's research [16]

also have the same indicators used in writing and researching this paper, namely :

1. Using fake ISSN and even stealing of ISSN from legitimate (legal) publishers but reused by junk journal publishers.
2. The scope of research in the journal is unclear and is not even mentioned.
3. Low academic standards for writing journal documents, for example, the use of data fabrication in journals or the use of words and sentences that have no meaningful information in them.
4. The pursuit of profit solely uses the same mechanism as predatory journals, namely the existence of a very high (unreasonable) APC fee for each journal received and to be published.
5. Lack of and no peer-review process.
6. The rate of journal acceptance is very high, where the rejection of journal documents is less than 5 percent. This means that the journal acceptance rate is very high, which is more than 95 percent (higher than India).

3. DISCUSSION

Tracing predatory journals using data collection aims to analyze the existence of predator journals along with the working scheme of the predator journal itself. Where the data collection used by researchers is by using a combined combination of Jeffrey Beall's predatory journal list catalog, Cabells Version Blacklist, Directory of Open Access Journal (DOAJ), and Scimago Journal Ranks (SJR). Then for the data collection that has been obtained from several sources, samples will be taken in the form:

1. Journal Name.
2. ISSN.
3. Indexation System.
4. Article Processing Charge (APC).
5. Peer-Review Process.

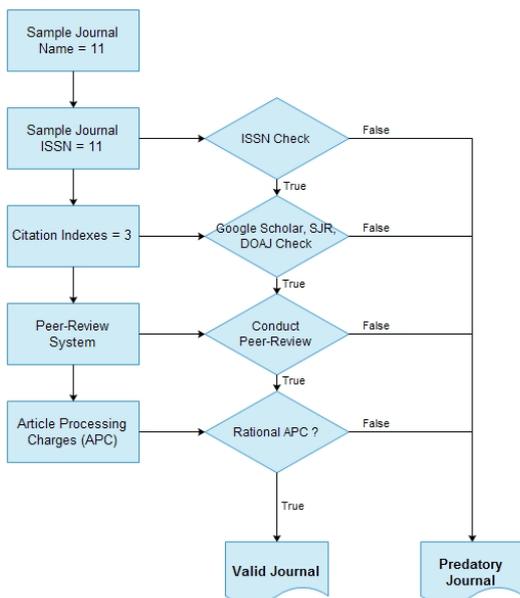


Figure 2 Schematic model of Journal Examination Classification

The following is a list of journal names that are used as examples in the data collection found based on the classification model used in this study, where 11 journal names are strongly indicated to be classified as predatory journals, where the examination is carried out by checking the ISSN number owned by whether registered or indexed in the Scimago Journal Ranks (SJR) as an indexed journal:

Table 1 List of Predatory Journal

No	Journal Name	ISSN	ISSN Valid
1	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	X
2	International Journal for Scientific Research & Development	2321-0613	X
3	International Journal of Advanced Research in Computer Engineering & Technology	2278-1323	X
4	International Journal of Advanced Engineering Technology	0976-3945	X
5	International Journal of Trend in Scientific Research and Development	2456-6470	X
6	International Journal of Engineering Research and Applications	2248-9622	X
7	International Journal of Scientific & Engineering Research	2229-5518	X
8	International Journal of Applied Information Systems	2249-0868	X
9	International Research Journal of Engineering and Technology	2395-0072	X
10	International Journal of Computer Science & Communication	0973-7391	X
11	Imperial Journal of Interdisciplinary Research	2454-1362	X

Based on the results of the ISSN observation, it can be seen that none of the ISSN numbers of each journal are registered on the SJR.

4. CONCLUSION

Research activities carried out by researchers, especially in the academic world, require ethics, morals and also responsibility starting from the initial stages of research, then the research process carried out until the final result of the research to be achieved. Without an understanding of ethics in a research activity, there will be many problems that will occur in the future. Real examples of several violations of research ethics discussed in this paper are Plagiarism and Predator Journals. Both of these are examples of frightening things and will threaten the essential meaning of the world of education and academics who still uphold the values of truth and honesty from research activities. In the end, the role of ethics in the field of computer science research is beneficial for researchers to play its role properly so that they can appreciate the process of a research activity that will make a meaningful contribution and also benefit the development of the world of computer science and information technology.

REFERENCES

- [1] SINTA, "Science and Technology Index," 2019. [Online]. Available: <https://sinta.ristekdikti.go.id/>. [Accessed: 19-Aug-2019].
- [2] K. N. A. Van Wetenschappen, "Ethical and Legal Aspects of Informatics Research". Amsterdam, 2016.
- [3] B. C. Stahl, G. Eden, M.Jirotko, and MCoeckelbergh, "From Computer Ethics to Responsible Research and Innovation in ICT: The transition of reference discourses informing ethics-related research in information systems," *J. Inf. Manag.*, vol. 51, no. 6, pp. 810–818, 2014.
- [4] S. B. Kert, C. Uz, and Z. Gecu, "Scenarios for Computer Ethics Education", *Procedia – Social and Behavioral Sciences* Vol.46, pp.2706-2710," in *World Conference on Educational Sciences (WCES)*, 2012.
- [5] M. Masrom, Z. Ismail, R. Hussein, and N. Mohamed, "An Ethical Assesment of Computer Ethics Using Scenario Approach"," *Int. J. Electron. Commer. Stud.*, vol. 1, no. 1, pp. 25–36, 2010.
- [6] D. B. Resnik, "What is Ethics in Research & Why is it important". 2007.
- [7] R. Fraser, "Collaboration, Collusion and Plagiarism in Computer Science Coursework"," *Informatics Educ. A J. East. Cent. Eur.*, vol. 13, no. 2, pp. 179–195, 2014.
- [8] W. Hurp, "The publication of research results – ethics and plagiarism implications"," in *Integrating Food Science and Engineering Knowledge Into (ISEKI) the Food Chain Conference*, 2014.
- [9] C. Collberg, S. Kobourov, J. Louie, and T. Slattery, "A Study of Self-Plagiarism in Computer Science". 2016.
- [10] K. Shashok, "Advice to Authors: Self-plagiarism, duplicate publication, secondary publication and translation". 2010.
- [11] J. Beall, "Predatory publishers are corrupting open access", *Nature*, 2012.
- [12] M. S. L. M.Bagues and N. Zinovyeva, "A Walk on the Wild Side: 'Predatory,' *Journals Inf. Asymmetries Sci. Eval.*, 2018.
- [13] K. D. Cobey, M. M. Lalu, B. Skidmore, N. Ahmadzai, A. Grudniewicz, and D. Moher, "What is a predatory journal? A scoping review," *F1000Research*, vol. 7, p. 1001, Jul. 2018.
- [14] J. Beall, "Essential Information about Predatory Publishers and Journals". 2016.
- [15] S. Kurt, "Why do authors publish in predatory journals?," *Learn. Publ.*, vol. 31, no. 2, pp. 141–147, Apr. 2018.
- [16] S. Lin and L. Zhan, "Trash journals in China," *Learn. Publ.*, vol. 27, no. 2, pp. 145–154, Apr. 2014.