Chapter 2

Review of the Relevant Literature

2.1 Preamble

Review of the literature is one of the major and important aspects of research. The literature study helps to know what is done by other researchers in the specific subject and to grasp the essence of the work done by others. For collection of relevant literature for this study, the researcher visited the American Library, Chennai and collected related articles through LISTA (Library, Information Science & Technology Abstracts) database available there. Research is multidisciplinary these days as well as instances of plagiarism are common in every subject, therefore the researcher also has gone through some online database related to other subjects, viz. IEEE Xplore Digital Library, Emerald Insight, Springer Link, Science Direct, ProQuest and J-Gate.

Apart from this, the researcher visited few websites, viz. Shodhaganga: a reservoir of Indian Theses, Vidhyanidhi: Indian digital library of electronic theses and ETD (Electronic Theses and Dissertations) and found some literatures which are relevant to the research topic. Many authors, researchers and information scientists have contributed a lot of research published on plagiarism. Hence, a review of a few studies deserves due attention to the analysis of the present study. Review of those literatures has been mentioned in this chapter.

Review of collected related literature has been divided into sub themes mentioned below:

- Plagiarism in general
• Intellectual property rights, copyright, and plagiarism

• Plagiarism related other studies

• Awareness, knowledge and perception of plagiarism

• Attitude towards plagiarism

• Environments/Reasons which made individuals to reproduce works of others

• Plagiarism detection tools and techniques

• Reduction and prevention of plagiarism

2.2 Plagiarism in General

Nisha, et al.\textsuperscript{3} provided an overview of plagiarism—plagiarism in research, and various commercial and free plagiarism detection tools available. Further, the paper presented the latest plagiarism cases reported from India and abroad and initiatives taken by academic and research institutes in India to detect and prevent plagiarism.

Birte, et al.\textsuperscript{4} focused on a prominent plagiarism case that revolved around the former Minister of Science and Education’s dissertation in Germany. The authors investigated the communication strategies of the Düsseldorf University as it navigated the complex challenges of the crisis situation. The study finds that the university responded to the crisis by focusing on legitimating the legal and administrative process by which it evaluated Schavan’s dissertation and revoked the degree. In turn, this focus neglected restoring the threatened reputation of graduate education and of scholarship itself. Ultimately, the crisis
communication of the university worked to undermine the premises and goals of science communication.

Pandey, et al.\textsuperscript{5} highlighted the menace of plagiarism with some case studies and the means to curb plagiarism effectively with the help of educational seminars for especially young researchers. Authors also discussed the results of surveys conducted after organizing the seminars for plagiarism awareness. As per the survey results, most of the students were not even aware of plagiarism earlier, but after the seminar, their understanding of plagiarism issues enhanced, and they felt highly motivated against it.

Wager\textsuperscript{6} discussed all the factors and proposes possible definitions of major and minor plagiarism in relation to scholarly publications. The author mentioned that plagiarized tables or figures, ideas or plagiarism in translation cannot be detected by anti-plagiarism software. These software only detect the extent of text copied. So a proper definition of major and minor plagiarism in scholarly publications can help formulate anti-plagiarism policies along with resources such as COPE flowcharts. The author also provided some suggestion to handle plagiarism.

Okoche\textsuperscript{7} discussed different types of plagiarism, various reasons of adapting plagiarism as well as how to combat plagiarism in East Africa, the Authors also highlighted in their paper that plagiarism would destroy the fabrics of university education like cancer.

Hwang discussed the concept of plagiarism and its consequences. In the words of Hwang, “there is a need to create tools that will empower creative originality in line with the variations and forms of authentic creativity, particularly in the postmodern times.”\textsuperscript{8} He also mentioned a few cases of plagiarism.
Vinod, et al. pointed out the meaning of plagiarism and its history in their paper. According to Vinod et al., “many of the research scholars commit plagiarism without their knowledge.” The authors also suggested the ways to avoid plagiarism and how to publish one’s own article safely.

Seadle discussed complex cases where plagiarism may have occurred. According to Seadle, “plagiarism tools, while invaluable for discovering potential problems, can also expose cases where judgments depend on complex circumstances.”

Embleton and Helfer discussed a different type of plagiarism and academic cheating in which students used to pay money and get the article for their academic purpose. According to the authors, “the Internet has made academic dishonesty easier and faster. It is simpler than ever before to find other people's words on a topic and pass them off as your own with a simple copy-and-paste maneuver. Many sites offer off-the-shelf and ready-to-go term papers.” For reducing plagiarism, the authors suggested that faculty should ask students to show their progress by requiring students to submit assignments outlines, research notes, and drafts. These can demonstrate that the papers are indeed their own original work.

Holmberg and Mark conducted a study to explore plagiarism in scientific and technological master's theses. This study focused on the potential occurrences of plagiarism in 68 randomly selected electronic master's theses published in 2003. For this study, the authors selected unreferenced phrases from the theses and searched for matches in the Google and Scirus search engines. It is inferred from the study that out of the total 68 selected theses, 43 theses included word-for-word plagiarism.
Betty\textsuperscript{13} focused in the paper, the prevalence of plagiarism in schools, universities, and workplaces in Texas; definition and types of plagiarism; reasons why people plagiarize; and suggested prohibition of plagiarism; detection and prevention; policies governing plagiarism etc.

2.3 Intellectual Property Rights, Copyright and Plagiarism

In his article Ensign\textsuperscript{14} discussed the two cases currently before the courts which show just how little of the content must be substantially similar to support a finding of infringement. It indicates that the fact that it is being entertained by courts show that there merits to the infringement claims where defendants will have to defend their works while judges will look at factors other than lyrics to determine if original works were infringed.

Copeland\textsuperscript{15} discussed the issues of fair use and copyright and how librarians can better understand the limits of intellectual property laws in an educational setting. Included is how to determine whether or not a material is protected, the guidelines of Fair Use as it pertains to educational materials, and the specific rules of use for different media formats.

Dorner\textsuperscript{16} offered the author's insights on the issue of plagiarism and imitation. The author argued borrowing of intellectual property is natural, inevitable, and normal while stealing raises indignation. The author said that artistic meaning of good involves an original and unique creation while bad is denoted by an intention to deceive.

Lindsay did a study on student plagiarism in universities, and considered the two problems often arising in relation to student plagiarism cases at academic institutions: the definitional limits or scope of the concept of plagiarism used by
universities, and the standards of proof to be employed in plagiarism or other misconduct cases. The author argued on the first problem, “The model of plagiarism as a disciplinary concept should be limited to circumstances where student conduct amounts to intentional or negligent breaches of relevant academic conventions.” And in respect of the second issue, the author argued, “the paper considers circumstances in which differences in evidentiary standards ought to apply, such as where law students or international students face disciplinary action.”

In his article Pressman discussed the librarians’ legal obligation of fair use and the librarians’ ethical obligation of fair use and the similarities and differences between them; the author concluded, “The librarians’ ethical obligation may be greater than their legal obligation.” The author also suggested principles which librarians can advocate for in copyright policies to implement the ethics of fair use.

Herman and Narayanan focused on the fight against plagiarism and intellectual property rights violations in their article. The authors mentioned some findings arising from investigations on the topic particularly in the field of scholarly works. It also discussed some upcoming technology and its implications on the quality of life since it can transform one's life due to consideration on social aspects of technology.

Joint argued that librarians and information professionals have a special responsibility for creating policy, encouraging understanding and resolving legal disputes and conflicts unique to this aspect of the information society. The author suggested that it is possible through the educational impact of systematic information literacy programmes which include intellectual property issues as part of the syllabus. In the words of Joint, “attitudes and policies need to be clarified so
that a coherent approach to a range of different but related intellectual property (IP) matters such as plagiarism, self-archiving on research repositories and respect for the commercially owned copyright material is uniformly developed.\textsuperscript{20}

Robinson\textsuperscript{21} expressed that librarians affiliated with educational institutions, as members of an academic community, participate in teaching students and future scholars how they share in the responsibility, of upholding ethical standards of scholarship and values of academic honesty. Academic honesty, in its variant forms, was part of issues in education long before the introduction of computers. Two forms, plagiarism and copyright infringement, were chronic problems in the print realm and present additional dimensions in today's electronic environment. The causes of copyright infringement and plagiarism are extensive and complex. Divergent positions are represented in the literature on how to deal with these issues. They are not only legal issues, but moral and ethical issues as well.

Alsaffar\textsuperscript{22} defined key differences between copyright and plagiarism, and asserts the importance of librarians to provide guidance and education on these issues. The author also provided outlines for the avenues of acceptable use of copyrighted works.

\textbf{2.4 Plagiarism Related Other Studies}

Romero and Lorenzo\textsuperscript{23} did a bibliometric analysis on plagiarism. The Deja Vu database was used for bibliometric analysis of plagiarism and self-plagiarism. They studied self-plagiarism through citation analysis of those documents. The authors found in their study that plagiarized documents were published in journals with lower visibility and less cited. But, plagiarized articles contained more full-text similarity compared to cases of self-plagiarism. Documents of shared authors showed greater full text similarity with uncited original documents than those
which cited the original. References cited in the two documents showed greater similarity.

Cronin reflected on the issue of coining the term ‘self-plagiarism’, used when an author copies information from his or her own previously published material without apt citation. The author discussed various such cases along with the needed steps to follow while one has to reuse one's own literary materials. The author also criticized the concept of ‘self-plagiarism’ unless the material is co-authored by some other authors.

Wager discussed in his article about publication ethics often focus on misconduct by authors, such as data fabrication and plagiarism. In the article, author spot the light on the roles of editors, publishers, academic societies and research institutions. They have ethical responsibilities and should carefully consider the effects of their policies and actions. In the words of Wager, “if people believe that publication ethics is 'somebody else's problem', little progress will be made and problems will persist.”

Raihanah et al. found that undergraduate students in University Kebangsaan Malaysia, faced significant problems in writing critical essays. In the words of Raihanah, et al., “some of the problems were rudimentary and could be dealt with through personal consultation. Nonetheless, most of the problems faced by the learners appeared more fundamental including the inability to discuss the issues in a critical manner, lack of paraphrasing skills and doing correct in-citations, purely summarizing the text without creating relevance with the topic and committing acts of plagiarism.” The Authors further mentioned, “as an intervention strategy, we incorporated and expanded certain available approaches that assist students to acquire the main skills they require in order to develop educated responses and write critical essays for literature.”
In his article, Jargin\textsuperscript{27} focused on the problems of plagiarism in medical libraries, and also on the problems regarding access to foreign medical literature in Russia. It describes that the acquisition of foreign literature by Russian medical libraries has declined since the 1980s. It talks about the Central Scientific Medical Library in Moscow and the Russian State Library and on inadequate funding, poor conditions in the buildings, and the inability of readers to access foreign journals held at the libraries. It comments on the rise of plagiarism in Russian medical journals due to limited foreign journal access and on outdated medical practices that result from insufficient knowledge of foreign literature. It mentions the limited availability of online medical journals and how plagiarism is an obstacle to free access to online material.

Wheeler and Anderson\textsuperscript{28} investigated the impact of the modern information society on attitudes and approaches to the prevention of plagiarism. The authors provided the guidelines related with the prevention of plagiarism. They recommended that student skill should be developed and there should be proactive involvement of all relevant stakeholders.

Gorman done study on the plague of plagiarism in an online world. In the words of Gorman, “plagiarism has been common among generations of students in secondary and tertiary education and the situation has not improved. Many tertiary institutions almost never make a forceful response to cases of plagiarism for fear of litigation. Litigation-creep has spread, with universities regularly adopting avoidance measures rather than tackling the issue head-on.”\textsuperscript{29}

McCuen\textsuperscript{30} discussed different forms of plagiarism viz. dual publishing, self-plagiarism, and ghost authorship. The author mentioned in his paper that plagiarism is more a decision process than an act. The decision process can be
represented by five steps. Pressure could be stimuli to begin the process and feelings of regret are avoided using rationalization. The decisive option not to plagiarize could be cultivated among graduate students and faculty by educating them.

Selwyn\textsuperscript{31} did a study of online plagiarism amongst undergraduate students in UK higher educational institutions and found that out of the total 1222 respondents, around three-fifths of students self-reporting at least a moderate level of internet-based plagiarism during the past 12 months. The level of off-line plagiarism self-reported by students correlated well with their online plagiarism. The author also discussed in this article, how internet base plagiarism can be tackled by university authorities.

Nicholas\textsuperscript{32} discussed that librarians and information professionals are responsible for creating policy, resolving all legal disputes and conflicts arising in this information society. Intellectual property issues could be included in systematic information literary programmes. A well balanced approach need to be brought about to a range of Intellectual Property matters like plagiarism, self-archiving on research repositories of commercially owned copyright material by understanding attitudes and policies.

Krishnan and Kathpalia\textsuperscript{33} discussed plagiarism in the review of literature in report writing. The authors examined the review of literature sections of final year project reports to find out how much engineering undergraduates in a Singapore university aware of the generic structure of literature reviews and what strategies they use in reviewing past literature, relating it to their research topic, and embedding it in the broader context of the field, while attempting not to plagiarize. The authors also suggested ways in which student can extend their skills to improve their literature reviews.
Culwin and Lancaster discussed plagiarism issues for higher education in their paper. According to them, “academic institutions are finding they have to operate under a pro-active anti-plagiarism policy, where plagiarism is actively sought out as a serious breach of acceptable academic behavior.”\(^{34}\) In this paper authors considers the reasons that institutions need such a policy and the issues they should be aware of when implementing one.

### 2.5 Awareness, Knowledge and Perception of Plagiarism

Paulo and Ana\(^{35}\) conducted a study to explore 170 teachers and 334 secondary school students’ perceptions on plagiarism of seven European countries. Results indicate that both know that plagiarism is illegal; attribute plagiarism to the easiness on contents access on Internet but while teachers tend to attribute causes to students’ lack of skills, students highlight the pressure to get good grades, laziness and poor management as well as the expectation that won’t be caught. For preventing plagiarism, authors suggested to teachers to promote students’ skills.

Rani and Nagaraju\(^{36}\) investigated the awareness about plagiarism among postgraduate students and found that the majority of the respondents did not understand what plagiarism is. The main reason for plagiarism found from the study that the respondents found it difficult to express their ideas in the English language.

Lina and Linas\(^{37}\) conducted study to identify the understanding of plagiarism by the students in HEIs of Lithuania in comparison with general understanding of this phenomenon. Students themselves confidently said they know what it is plagiarism, but empirical study showed that understanding of plagiarism among participating students' is unambiguous as it is stated and in analyzed scientific publications and this understanding not satisfying academic community. Authors
suggested that comprehensive and clear definition of plagiarism and various types of it with practical examples could help the academic community to develop plagiarism prevention.

Sentleng and King conducted a study to find awareness and reasons of plagiarism among undergraduate students at a higher education institution in South Africa. Quantitative method has been used for this research and it has been found that student plagiarism is fairly common. In the words of Sentleng and King, “41% of undergraduate students think that plagiarism is very serious, but plagiarism is still being practiced within these departments. It was also found that 71.9% of students admit to using the Internet to compile their assignments.”

Study reveals that students used to plagiarize from the Internet, books and journal articles.

Babalola examined the awareness of plagiarism among undergraduates in a Nigerian private university and found that most of the students lacked an adequate understanding of behaviors that constitute plagiarism and are thus more likely to commit unintentional plagiarism. In the words of Babalola, “a significant positive relationship was found between levels of awareness and the incidence of plagiarism, indicating that awareness of behavior that constitutes plagiarism may not deter students from engaging in it.”

Marcus and Beck conducted a survey to know perceptions and attitudes toward plagiarism among faculty members at Queensborough Community College. The authors found that 50% of the respondents did not clearly understand the institutional definition of plagiarism or academic integrity and/or did not properly apply the College's guidelines. The authors suggested conducting faculty development programm on the interpretation, use, and application of the Academic Integrity Policy at this institution.
Ramzan, et al. conducted a study on awareness of plagiarism among graduate and post graduate students of Pakistan through questionnaire method and have found that awareness level is low regarding plagiarism and a majority of the respondents did not know anything about plagiarism. In the words of Ramzan, et al., “a significant number of students have fairly admitted that they intentionally plagiarized written materials.” The authors also provided recommendation to reduce plagiarism.

Razera did a study at Stockholm University to find awareness, attitude and perception of plagiarism among students and teachers. The research consisted of paper and online surveys as well as semi-structured interviews. In total, there were 71 participants (47 students and 24 teachers) in the first phase of the research, text plagiarism and 101 participants (97 students and 4 teachers) in the second phase of the research, code plagiarism. The author found that students and teachers both were not aware of the plagiarism issue. The authors also gave some recommendation to how to deal with plagiarism.

Orim did a study to know awareness, perception and attitude of Nigerian students to plagiarism and suggested that there is a need for more training on scholarly academic writing for Nigerian students who have come to study in the United Kingdom for the first time. This will help them understand the need to write and cite appropriately and acquire the relevant skills, particularly in summarizing and paraphrasing which will help them avoid plagiarism.

Anjum and Ali did the study to know researchers’ perception and practices about plagiarism in university of Peshawar. It is found from the study that majority of the researchers copy ideas without acknowledgments and references. Researchers do it for the purpose of securing good grades. Responded accepted that working by their own effort is just like a time consuming act for them. In the words of Anjum
and Ali, “the researcher (teacher and student) might have information of the policy formulated by HEC. Researcher might have creative form of work for comprehensive based learning rather imitating and cheating by other sources. Creativity includes book reviewing, critical analysis of the essays and so on.”

O'Dwyer, et al. did a study on undergraduate university entrepreneurship students to know student’ views of plagiarism and ability to avoid plagiarism. In the words of O'Dwyer, et al., “although entrepreneurship students have a clear conceptual understanding of plagiarism and how to avoid it, and they demonstrate an ability to accurately recognize material which needs to be referenced, they do not see the use of non-referenced material as being in breach of academic guidelines.”

Ryan, et al. conducted a study at Sydney University to know undergraduate and postgraduate pharmacy student’ perception of plagiarism and academic honesty and the findings revealed that many students were involved in plagiarism and they were not citing the source material properly. In the words of Ryan, et al., “most of the students did not perceive that plagiarism was a serious issue.”

Madray conducted a survey to know understanding of plagiarism among students in C. W. Post Campus. The survey was designed in the form of a pre-test and post-test. The pre-test was designed to ascertain incoming students’ basic understanding of plagiarism. The post-test was intended to indicate the usefulness of the plagiarism awareness session. In the words of Madray, “this study shows that recent high school graduates—freshmen entering college— are unaware and unprepared for higher education. Many students (those that lack paraphrasing and analyzing abilities) have difficulty in carrying out straight forward tasks such as citing book sources.” Study also revealed that 73% of the participants not aware of plagiarism.
Clarkeburn and Freeman conducted a study to know the knowledge of plagiarism among business students. In the words of Clarkeburn and Freeman, “the results of the survey revealed that students have an incomplete understanding of what constitutes honest academic writing and that an active faculty-wide approach to promote improved understandings is possible. A large proportion of students are motivated to write in academically appropriate ways for internal reasons rather than external ones like the risk of being caught.”

Bodary conducted the survey to find perception regarding incidents and outcomes of the plagiarism among faculty of Sinclair Community College's campus. The results of the survey revealed that 66.6% of the respondents were indulged in plagiarism. 92% of the respondents were not aware of college guidelines for dealing with plagiarism. 62% of respondents were not aware of guidelines at the departmental or program level to assist in dealing with the issue. A majority (85%) of the respondents agreed that some form of campus-wide guidelines would be a welcome improvement. Recommendation for reducing plagiarism also has been given by author in this paper.

Shifra and Yaari did a study on student’s perception about act of plagiarism through survey methods. A total of 284 students responded the questionnaire. Finding of this study shows that plagiarism from internet sources is perceived as less dishonest than a similar act of plagiarism using a printed source.

2.6 Attitude towards Plagiarism

Ehrich, et al. did a study to measure attitudes toward plagiarism among university students and address some issues. These issues are highlighted by a psychometric evaluation of a commonly used (but previously untested) plagiarism attitudinal scale. Psychometric analysis revealed the scale to be unreliable in its
present form. However, when reduced to an 8-item subscale, it became marginally reliable.

Langa\textsuperscript{52} did the study to find student’s attitude towards academic honesty. The author also investigated student’s views on plagiarism in reports, license papers, copying method etc. and found that there is a need of creating awareness of plagiarism among students to improve the academic honesty.

Aasheim, et al. conducted a study to examine students’ attitude towards the number of behaviors. Attitude regarding such behaviors, are compared based on the type of assignment (programming assignment, written essay, math problems). The result of the study shown that students do perceive that there are difference in the acceptability of behaviors depending on assignment type. In the words of Aasheim, et al., “faculty efforts to clarify expectations do result in a change in student attitudes regarding the acceptability of certain behaviors.”\textsuperscript{53}

Bartlett and Casselden\textsuperscript{54} conducted the study to investigate the of academic librarians’ attitude towards internet plagiarism in United Kingdom (U. K.). A Delphi method has been used for this study. The responses demonstrated that plagiarism is a multifaceted term and not easily definable, however respondents were unanimous in their opinion that the Internet has made it easier to plagiarize. The potential for active collaboration between librarians and academics to jointly address Internet plagiarism was seen as vital by all respondents, although opinion was divided on the role of librarians and academics. The authors recommended a blended approach of involving policing and prevention of plagiarism as well as to ensure that students should achieve information literacy before they reach to the gates of the university.
Schrimsher, et al.\textsuperscript{55} did the survey to know students’ attitude and opinion towards plagiarism and academic misconduct in Samford University. It is inferred from the research that plagiarism and other cases of academic misconduct are on the race because of many reasons like students feel that information which is available on internet is a public knowledge and free from intellectual property rights; therefore, they do not seem to think internet information needs to be cited for academic purposes. Result shows that most of the respondents from Samford University agreed that if one submits a paper written by someone else, this would constitute plagiarism; and that it was unacceptable to copy/paste information from the internet without proper citations. It is also inferred from the result that somewhat less than a majority of respondents disagreed that cheating was widespread at Samford; and a majority indicated that faculty should clarify their expectations regarding academic integrity.

Smith, et al. did a study to measure attitudes towards plagiarism among undergraduate accounting students in Malaysia. In the words of Smith, et al., “a significant proportion of Malaysian undergraduate accounting students in the study had involved in plagiarism activities to a limited degree; the observed profile was consistent with the incidence of plagiarism activities being associated with academically weaker, male students with a negative attitude to their studies.”\textsuperscript{56}

\textbf{2.7 Environments/Reasons which Made Individual to Reproduce Works of Others}

Shtennikov and Zyablova\textsuperscript{57} identified the main reasons for plagiarism is low efficiency in detecting plagiarism and proposed to increase the efficiency in identifying plagiarism in scientific papers and theses.
Sudha and Nagaraju\textsuperscript{58} found the main reason for plagiarism among postgraduate students is that students find difficulty to express their ideas in English language.

Dimitra and Joost\textsuperscript{59} provided an overview about the prevalence and reasons made students to reproduce the work of others. The literature overview showed that a substantial cause of plagiarizing behavior is a lack of knowledge, whereas attitudinal aspects and cultural values are important contributing factors as well. In empirical study it has been found that the plagiarism by students who followed the in-class instruction was significantly reduced. Yet, the instruction did not eliminate plagiarizing incidences completely, pointing out that plagiarism is a persevering phenomenon.

Theresa, et al\textsuperscript{60} did the comparative study between the students and the faculty members to find their perception of plagiarism. Qualitative and quantitative methodology was used and it has been found that the faculty members and students do not share a consensus on the definition of the seriousness of plagiarism and collusion. It has been found that Students, in general, commit misconduct due to academic work, pressure for grades, and teachers' unclear instructions of academic integrity. It also has been found that faculty members rarely report cases of misconduct to the university and handle the cases according to their own standard.

Comas and Sureda\textsuperscript{61} mentioned in their article entitled, “Academic Plagiarism: Explanatory Factors from Students’ Perspective” that the reasons for plagiarism are lack of time management and personal organization skills.

Teixeira and Rocha mentioned in their paper, “students tend to adopt such behaviors when it is felt as a familiar behavior, in settings with sparing monitoring
or supervision, and when students believe that their gains are higher than the losses, due to minor penalties applied.”

Tayraukham studied the level of plagiarism in higher education in Thailand. In the words of Tayraukham, “students with performance goals were more likely to indulge in plagiarism behavior as compared to the students who want mastery in a particular subject. Most of the students plagiarize to get the right answers to their question, ultimately to achieve high grades in their studies instead of getting expertise in their subjects of study.”

In the words of Carrol, J., “many international students ‘borrow’ the words of native authors through lack of confidence in their own abilities to write correct, clear English.”

Malcom, et al. examined undergraduate accounting students' perceptions of factors contributing to plagiarism activities. In the words of Malcom, et al., “factors contributing to plagiarism include lack of awareness, lack of understanding, lack of competence, and personal attitudes. No evidence was found to support the suggestion that either pressure or the availability of internet facilities had increased the incidence of plagiarism.”

Marden, et al. did the study on dishonest academic behaviors in a sample of Australian university students and pointed in their article that the reasons for plagiarism are lower self-efficacy and reduced learning goals.

In the Words of Bricault, “ignorance is a key factor and that students are likely to plagiarize by mistake rather than intentionally”. According the author the reasons of reproducing works of others, are stress, grades, time, workload, course difficulty etc.
2.8 Plagiarism Detection Tools and Techniques

Taiseer, et al. discussed about the state-of-the-art techniques used to detect plagiarism in terms of their limitations, features, taxonomies and processes. The method used to execute this study consisted of a comprehensive search for relevant literature via six online database repositories namely; IEEE Xplore Digital Library, ACM Digital Library, Science Direct, EI Compendex, Web of Science and Springer using search strings obtained from the subject of discussion. The findings revealed that existing plagiarism detection techniques require further enhancements as existing techniques are incapable of efficiently detecting plagiarized ideas, figures, tables, formulas and scanned documents.

Asim et al. discussed different methods for plagiarism detection and also given comparison between five software with respect of their features and performance. In the words of Asim et al., “there is no software that can detect or to prove that the document has been plagiarized 100%, because each software and tool has advantages and limitation.”

John and Margaret did study on Turnitin software as an educational tool in student dissertations. In the words of John and Margaret, “over the course of the academic year, students submitted their dissertation work on average five times. Student Turnitin ‘similarity scores’ were reduced, but student use of Turnitin did not significantly enhance the quality of their writing.”

Kaner and Fiedler did comparison of the working performance of the two major tools i.e. TurnItIn and MyDropBox, in detecting the plagiarized contents from the published articles in IEEE. As it has been identified that both the software performed very poorly because these two don’t have an ability to compare the data that is already submitted in IEEE and with the data which it needs to be compared.
Association for Computing Machinery (ACM) database is not covered in these two software.

Badke focused on detection of plagiarism. The author said that if anyone aware of the fact that if they reproduce other’s work, it can be caught very easily, so they will never copy work of others and will try to avoid this practice. The author points out in detection of plagiarism that one should start with a Web search engine. It is indicated, “Google Scholar and similar academic search engines most definitely search a lot of academic full-text content.”

Lukashenko, et al. discussed plagiarism prevention and plagiarism detection in their paper. The authors described extensively used plagiarism detection methods and also analyzed plagiarism detection tools.

Holmberg and McCullough et al. discussed possibility to detect plagiarism in electronic science and engineering theses though web search engines Goggle and Scirus. In the words of Holmberg and McCullough, “the Scirus searcher is capable of finding more matches quickly against journal articles. Google, on the other hand identified more matches against government documents and corporate websites. The difference in the types of documents retrieved by the two search engines suggested that using both search engines would maximize effectiveness.”

Gauder examined the advantages and limitations of four online plagiarism detection measures, including detection services and search engines. The author also tested software for their ability to detect plagiarism accurately.

2.9 Reduction and Prevention of Plagiarism
Linas, et al.\textsuperscript{76} provided investigation into measures, used for plagiarism prevention in students’ written works, and analysed the effectiveness of plagiarism prevention measures used in university investigation for plagiarism. The authors also provided overview of proposed plagiarism prevention measures, practices of implementation of these measures and their impact on students’ behavior.

Eleonora\textsuperscript{77} discussed about a survey initiated by the Association of Lithuanian Serials, which aimed to ascertain whether Lithuanian journal editors, reviewers and authors encountered plagiarism, self-plagiarism and how they understood originality of a paper. Additionally, the survey looked at methods used for plagiarism prevention by editors and reviewers as well as ways, in which editors managed issues related to plagiarism. The survey suggests that no unanimous decision exists regarding the originality of a manuscript and that editors expect reviewers to identify plagiarism with little use of technologies. While answering to survey questions, respondents provided numerous comments. This demonstrates that plagiarism is a burning issue and scientific misconduct policy is needed in Lithuania.

Uloma and Chinyere\textsuperscript{78} discussed increasing plagiarism in tertiary institutions in Nigeria and throughout the world due to the internet. The authors provided measures and steps from vast literature to curb plagiarism in the academic environment.

Bell\textsuperscript{79} discussed the plagiarism in context with the digital era from the perspective of a broader educational spectrum. The author focused on the constituents of plagiarism, prevalent plagiarism in schools and colleges, and ways for prevention of plagiarism through creative assignments. The author suggested that plagiarism act as antidotes and thus, it should be prevented at all levels of academic work from student papers to academic books.
Germek analyzed common forms of plagiarism prevention methods. He selected the Web-based tutorial as the most robust tool to capture scores and to provide valuable assessment data. Assessment data produced from analysis of plagiarism preventive methods could be retained for the library. Web-based tutorials can provide assessment data. A couple of web-based surveys and a study of twenty-five distinguished tutorials revealed that these tutorials are not efficient in capturing assessment data. Also the learning objective is missing in library tutorial design for online learning.

Zimerman described how plagiarism and the detection of plagiarism are interwoven with the education of international students. There is a definite problem involved in the interaction of international students in a higher education setting and plagiarism. In the words of Zimerman, “although plagiarism is a serious problem on academic campuses, libraries and librarians can offer substantial help in deterring and preventing plagiarism especially with regard to international students.”

Singh and Bennington studied the role of faculty to be precursor for university-wide policy on plagiarism. The authors mentioned that punishing intentional and unintentional plagiarism could lead to concrete solutions whereas reporting to administration could be a formal way. In the words of Singh and Bennington, “faculty members who think punishment is an apt course for both intentional and unintentional plagiarism are more likely to directly address student plagiarism. Faculty members who take an all-encompassing approach to plagiarism by expecting students to credit resources for all class work intend to take a more formal course of dealing with plagiarism by reporting it to the administration.”

Angelica, et al. explored the relationship between entrepreneurship students' ethical views on plagiarism, their self-reported engagement in plagiarism and their
participation in an online plagiarism prevention tutorial. In the words of Angelica, et al., “more than one online plagiarism prevention tutorial is required to change self-reported views relating to engagement in plagiarism, perception of peer participation in plagiarism and students' ethical views.” The authors suggested that educators should focus on good educational design and educating students regarding plagiarism prevention while making use of technology enhanced learning.

Park et al. shared the process that Northwest Missouri State University B.D. Owens Library uses to decrease plagiarism including citation style guides, academic honesty and plagiarism tutorials, online movies, and interactive learning objects that teach citing, which can be used or adapted by other libraries in both online and on-ground information literacy instruction environments. In the words of Park et al., “Citation reference questions as a percentage of the total number of reference questions answered by librarians are on the rise. This increase may be attributed to the growth of electronic resources, which are inadequately covered in citation manuals. Students frequently struggle with identifying types of sources listed in the database or bibliography citations, causing them to create bibliographies filled with errors.”

Gibson and Fangman discussed the ways in which librarians of different types are addressing the issue of plagiarism at the institutional and pedagogical levels. In the words of Gibson and Fangman, “more than 90 percent of the 610 respondents report that they have assisted students with citing sources. Over 70 percent have instructed students about plagiarism in class. Approximately a quarter has collaborated with other departments regarding plagiarism, conducted or attended workshops on plagiarism, worked with instructors to redesign assignments, or helped faculty with tracking possible instances of student plagiarism.”
Karen, et al. discussed a practical, effective method for teaching students about the ethical use of information and issue of plagiarism. Over the course of a year, the committee scripted, filmed, and edited the video portion of the tutorial. The assessment portion of the tutorial (an eight-question quiz drawn from a pool of 40 questions) was developed and refined in a series of pilot tests. In the words of Karen, “more than 80 percent of the 2,097 students who have completed the tutorial have correctly answered the question presented for seven of the eight outcomes.”

Schlipp focused on the development of the website Creative Thinking for junior high and freshman college students to bring awareness to the students about educational plagiarism and copyright. It states that the development of the website is collaborated by W. Frank Steely Library at Northern Kentucky University (NKU) and the NKU student and community partners. It discussed the lessons and activities in the website which educate about the ethics and legal issues on plagiarism and copyright.

Amsberry reviewed plagiarism among international students. The cross cultural issue of plagiarism are examined based on cultural, educational and linguistic factors. Due to multiple factors international students may resort to such practices. The author recommended orientations, instruction, reference service and web-based guides and tutorials as ways to raise awareness among international students.

Nimsakont discussed on how academic librarians educate students about plagiarism. The important aspect is the integration of anti-plagiarism instruction into education. Librarians have suggested that the time-managements skills could help students to rush for last-minute plagiarism. Better interaction with students could make this educating approach a success.
Drinan and Gallant\textsuperscript{90} claims that librarians have been neglected in the academic literary scene. As guardians of knowledge, they could benefit academia by creating new knowledge by thinking strategically and organizationally.

Madray\textsuperscript{91} presented the anatomy of a plagiarism initiative in her article. The issue of plagiarism in print and media is affecting professors, librarians and students. The need for a plagiarism initiative as started in B. Davis Memorial Library at C.W Post Campus of Long Island University through websites on plagiarism and continual workshops and programs for faculty and students was expressed. Faculty members are given techniques and tips to design assignments and detect and control plagiarism. Students are instructed on ways to avoid plagiarism.

Bombaro did a study to know the successes and challenges related with teaching first-year students a session on plagiarism avoidance. For this study the author used an audience response system and test the knowledge of plagiarism among first-year students. In the words of Bambaro, “this session helped students retain knowledge of plagiarism rules. Comments solicited about the session indicated that the students enjoyed the lesson, that they were better able to recognize problem areas in their own writing, and that the interactivity kept them focused on the lesson.”\textsuperscript{92}

Ury, et al.\textsuperscript{93} mentioned in his paper that with the phenomenal growth of online full-text sources, the chance to cut and paste of documents and download of full-text papers has become common. Strategies and assignment parameters that librarians can take for preventing plagiarism as well as consequences of plagiarism have been discussed in this paper.
Tsang and Aaron\textsuperscript{94} suggested in his article that continual efforts to educate our students about the ills and consequences of plagiarism are desirable to reduce the problem of plagiarism.

Liles and Rozaiski\textsuperscript{95} mentioned in his paper that with the boom in information technology, incidences of plagiarism are on the rise. The Association of College and Research Libraries includes the ability to use information ethically and legally in its information literacy standards. In this paper, the authors describe a theory-based workshop to teach students to avoid plagiarism by using style manuals. This instructional workshop conducted in the library would bring down plagiarism.

Lampert\textsuperscript{96} discussed a discipline–based approach to avoid cut and paste culture can be offered by literacy instructions to students. The author spells out the role that librarians can play by helping students and faculty undergoing the rigors of cut and paste age in higher education. Librarians and discipline faculty can collaborate well to relate to student needs and come up with information literacy instruction programmes.

Margaret et al.\textsuperscript{97} explored the plagiarism dilemma from a librarian's vantage point, and given outline the strong support that has been offered to teaching faculty with plagiarism problems by the Joan and Donald E. Axinn Library of Hofstra University. The author also examined how Hofstra University decided to subscribe to Turnitin.com, a popular but controversial online plagiarism detection system.

Wood and Paula focused on positive role of academic librarians to proactively prevent plagiarism by facilitating information, new ideas, intelligent use of internet and create vibrant scholarship among students. In the words of Wood and Paula, “librarians need to move beyond the plagiarism detective mode to become proactive. They must assume their role of experts in locating and evaluating
information. Rather than react to plagiarism after the fact, librarians can assist faculty in preventing plagiarism.”

Carroll suggested a different method to reduce plagiarism. In the words of Carroll, “student will be less able to plagiarize if teachers change the assessment task and change what they ask students to submit for assessment each time the course runs.” Carroll also mentions that when the course is perceived as uninteresting by the students, there is a higher change chance that they will eventually cheat.

Zangrando focused on the efforts of the historical profession to combat misconduct in the area of plagiarism in the United States. Role of a ‘mania' for rights on scholarly dishonesty; Dependence of scholarship and learning on a pattern of honest research; American Historical Association's addressing of the issue of plagiarism as part of its codification of guidelines for professional conduct.

2.10 Conclusion

It is evident from the above reviews that there have been studies conducted previously to examine the student’s awareness and attitude towards plagiarism yet none has been done on research scholars, who are directly related in the research and knowingly or un-knowingly reproducing works of others and indulge in plagiarism. Apart from this, many studies have highlighted the detection of plagiarism, the consequences of plagiarism, but no study has been done regarding helping the research scholars in avoiding plagiarism. This is a major research gap. As a step towards bridging this ‘research gap’, the present study attempts of a more elaborate study.
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