Role of Librarians and Information Scientists in Plagiarism Control: A Study of NIRF Ranked Engineering Institutions Ranked in 2020

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ABSTRACT

The study was conducted to ascertain the role played by librarians and information scientists in controlling plagiarism in NIRF ranked engineering institutions ranked in 2020. With the application of knowledge of various types of resources and technological tools, librarians and information scientists play vital roles in making the awareness and fighting the disease of plagiarism. The students, research scholars and more importantly the faculty should be aware of plagiarism and its detrimental effects on their practices on their study & research and future career as well. The major objective of this study was to recognise the role played by librarians and information scientists in curbing plagiarism. Keeping this in view, a few research questions were framed. The study surveyed 200 NIRF ranked engineering institutions ranked in 2020 where engineering programs are being conducted. The researchers of this study found that majority of the librarians and information scientists (81.82 %) think that awareness about plagiarism is quite important while 89.92 per cent of them also ascertained that their institutions have plagiarism policy, and most of the institutions are using Turnitin and/or Urkund Anti-Plagiarism detection tool as well. The Librarians and Information Scientists make their users aware about plagiarism by promulgating the information through various activities through the library portals/websites as well as social media services. It was found that total 68.18 per cent respondents believe that ‘Orientation Programs and training’ is quite significant methods to make them aware about regulations against plagiarism and can discourage such intellectual theft and infringement. The study also reveals that the librarians should frequently conduct meetings with Head of Department, Faculty members and educators to discuss the issue and also deliver lectures to the faculty members, researchers as well as students.

Keywords: Plagiarism awareness; Role of librarian; Plagiarism control; Engineering institutions; Information scientist

1. INTRODUCTION

Plagiarism is an issue of morality and honesty and integrity in academic arena as well as in personal life. It has several elements associated with plagiarizing the thoughts of others. Theft is concerning with the self-consciousness and internal belief. This is mainly concerned with use of intellectual assets with honesty and by maintaining the academic integrity. ‘Fair Use’ is a term makes strength the freedom of speeches that protects the educational as well as intellectual assets and avoids the plagiarizing act.¹

Warnken² emphasise on the academic integrity and academic dishonesty of the institutions and librarians put up this issue strongly for open discussion. The Library is a learning resource center and considered the hospital for treatment of this disease. Librarians provide solutions to this problem by teaching them about the instructional and informational assets. Schroeder³ suggested that librarians should consider all the perspective aspects on plagiarism during collaboration with faculty members.

University Grant Commission (UGC) issued a notification in the form of regulations for promotion of academic integrity and prevention of plagiarism in Higher Educational Institutions in 2018. Moreover, UGC approved the credit course for awareness about publication ethics and publication misconduct which is known as Research and Publication Ethics (RPE) and mandatory for all Ph. D. students.²³

In the era of Information and Communication Technology ICT the most prevalent topic in academia is plagiarism. Various forms of plagiarism the researchers often overlook, therefore the ‘need for an hour’ is the ‘need for knowledge among them’.⁴

Satija & Martinez-ávila⁵ described key terms and concepts such as “copyright, citation cartels, citing vs. quoting, compulsive thief, cryptomnesia, data fakery, ignorance of laws and codes of ethics, information literacy, lack of training, misattribution, fair use clause, paraphrasing, plagiarism, plagiarism detection software, publish or perish syndrome, PubPeer, retraction, retraction vs. correction, retraction watch, salami publication, similarity score, Society for Scientific Values, and source attribution”.

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Pandita & Singh\(^6\) discusses that because of misunderstandings and the mal-understandings about the plagiarism, academicians and researchers are not yet able to draw a fine line to understand as what amounts of plagiarism and what not and the ways and means to overcome this practice. Likewise, Childers and Bruton\(^7\) found that the students shared a very strong agreement that near verbatim copy and paste and patch writing should be considered plagiarism, but that they were much more conflicted regarding the reuse of ideas. Similarly, a number of studies have been conducted to assess the perception and attitude of students and scholars towards plagiarism.\(^8\)–\(^16\)

Further, Fazilatfar \(et\al.\)^\(^{17}\) analysed and found that students rely mainly on source text in the writings and follow the strategy of copying text from sources with confusion of how to cite the text. Selemani \(et\al.\)^\(^{18}\) investigated that despite plagiarism understanding, students commit plagiarism due to pressure of good grades, laziness and poor time management and lack of good academic writing skills. In any academic institutions, librarians are well equipped with skills of anti-plagiarism detection tools that what Burger\(^9\) stated that Librarians have the ability to recognise the difficulties of students with source attribution into proactive practices to address plagiarism at their institutions through awareness and institutions can work with librarians to combat plagiarism productively by taking constructive and education oriented measures.

The role of the librarians in combating of plagiarism cannot be denied regarding this. Idiegbeyan-ose \(et\al.\)^\(^{20}\) argue that librarians have strategic roles of awareness creation, teaching of referencing, citation skills, and information literacy programs to play in controlling the plagiarism misconduct. Fernández-Molina \(et\al.\)^\(^{21}\) presented that basic level of knowledge of copyright required to be inculcated in the students at optimum level as their professional activities. Ocholla \(et\al.\)^\(^{22}\) argue that open access becomes important in increasing the chances of plagiarism detection and discourage such unethical acts in higher education through conceptualizing the open access concept, role of stakeholders.

Information literacy program may be a good effort to educate the students about plagiarism which Moselen & Wang\(^{23}\) explored that there should be a development of a program for subject librarians for practical aspects to integrate information literacy into an academic curriculum. Gunnarsson \(et\al.\)^\(^{24}\) indicated that a teaching of properly citation and referencing skills are required to avoid the plagiarism and collaboration between librarians should be developed as a part of course. George \(et\al.\)^\(^{25}\) reported that new admitted students should be educated how to avoid plagiarism through the effective skills of librarians by discussing challenges and its negative impacts. Such misconduct is addressed by Zimerman\(^26\) pointed out the related aspects are causing the plagiarism to international students in a higher education which is a serious problem.

2. RESEARCH METHODOLOGY

This study was conducted to be familiar with the existing role of librarians in controlling plagiarism in top 200 institutions ranked from 1 to 200 enlisted in the category of engineering block in the National Institute of Ranking Framework (NIRF)\(^{27}\) ranked in the year 2020 and the surveyed institutions are located in the different corner of the country. The list of the selected institutions is available in the engineering block of NIRF 2020 ranking page.

2.1 Research Questions

This major object of this research was ‘to know the role of librarians and information scientists in plagiarism control at NIRF ranked engineering institutions ranked in 2020 with following extended research questions:

- To recognise the role played by librarians and information scientists in controlling plagiarism.
- To find out if the plagiarism policy has been framed and implemented by the institutions.
- To analyse what kind of tools are being used for anti-plagiarism.
- Understand the plagiarism awareness approaches adopted by Librarians.
- To reveal the observations of library professionals with regard to prevailing nature of plagiarism.
- To understand the reasons behind the misconduct of plagiarism as per the observations of library professionals.

To fulfill the above objectives, a total of 200 institutions where engineering programs are being conducted are taken up for this study and are in the scope of this research. To achieve this purpose, a well-structured questionnaire was designed and administered to get the data from the librarians of the 200 said institutions. The online questionnaire was promulgated to the librarians through e-mail and three reminders were sent for getting maximum response to make it a comprehensive study. During the month of November 2020, the cumulative survey duration was one month.

A total of 117 responses were obtained out of 200 colleges in which 7 responses were not taken up for the analysis due to incomplete data. It is a matter of great concern that a total of 83 institutions did not reply to the online questionnaire despite more than reminders. Thus, a total of 110 responses were included in the study for analysis of data. The data were tabulated and analysed using spreadsheet.

3. DATA ANALYSIS

3.1 Plagiarism Awareness Program

The librarians of the top 200 NIRF ranked engineering institutions were asked to indicate the importance and usefulness of awareness programs to combat plagiarism. The data in

<table>
<thead>
<tr>
<th>Relativity</th>
<th>Response</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very useful</td>
<td>90</td>
<td>81.82</td>
</tr>
<tr>
<td>Quite useful</td>
<td>14</td>
<td>12.73</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>3.64</td>
</tr>
<tr>
<td>Not very useful</td>
<td>1</td>
<td>0.91</td>
</tr>
<tr>
<td>Not at all useful</td>
<td>1</td>
<td>0.91</td>
</tr>
</tbody>
</table>
Table 1 show that 81.82 per cent librarians think awareness programs are very useful whereas 12.73 per cent think that it would be quite useful. Resultantly, plagiarism awareness is always useful for the librarians to controlling such misconduct.

3.2 Institution’s Plagiarism Policy
It is found from the study that 89.09 per cent institutions have plagiarism policy to control the academic misconduct whereas only 9.09 per cent institutions have no plagiarism policy and 1.82 per cent institutions are unaware about the plagiarism policy.

3.3 Anti-Plagiarism Detection Software
It is found that 38.18 per cent librarian use Urkund plagiarism tools whereas 31.82 per cent use the Turnitin software. Urkund and Turnitin software are more in prevalent among the institutions. The iThenticate anti plagiarism tool is also preferred by 12.73 per cent of respondents. Plagiarisma and Plagium softwares are not used and preferred by any librarians and only one respondent mentioned that they use other anti-plagiarism detection tool as shown in Table 2.

3.4 Methods of Awareness of Plagiarism
The students and researchers should be made aware about plagiarism through various methods and tools like curriculum development, orientation programs, notices and websites, and Regulations/Policies. The data from the Table 3 shows that orientation programs are conducted by 68.18 per cent Librarians whereas 49.09 per cent librarians think that Regulations/policies can play a vital role in combating the plagiarism. It is also found from the study that notices, circulars and websites can be an important method of awareness for students from where they can learn about this ill act. Only a small percentage (12.72 %) of respondents indicated that curriculum development may be a good method to make the students and faculty aware about plagiarism.

3.5 Use of Social Media Tools for Awareness
In terms of application of social media tools for making awareness about plagiarism, it is found that a good majority of librarians (76.36 %) preferred and using Institution website for making awareness while 63.64 per cent respondents opined that library portal is useful and an important platform to make awareness among the students and faculty members about plagiarism. Along with this, 25.45 per cent librarians use WhatsApp and 19.09 per cent use Facebook for promulgating the information about plagiarism. Twitter and RSS Feed, each one is used by only 1.82 per cent librarians as shown in Table 4.

3.6 Consultation with Librarian in Framing Policies
A librarian plays a key role in making awareness and controlling the plagiarism activities. In this regard, the educators and institutions should consult the librarians at the time of framing the policies so that librarians could make a valuable suggestion and contribute in combating against the plagiarism. It is found from the study that 50.91 per cent respondents ascertained for consultation whereas 38.18 per cent respondents answered that they were not consulted and 10.91 per cent respondents do not know about consultations. It is concluded from the study that librarians’ consultation may be valuable as they are aware about many tools and techniques to make their users information literate.

3.7 Plagiarism awareness through Lectures Delivered by Librarians
It is found from the study that librarians may deliver the lectures for teaching to the users which is depicted from the Table 5 that 76.36 per cent respondents delivered lectures one to two times in a year, whereas 6.36 per cent respondents delivered the lectures three to five times and more than five times per year each. 10.91 per cent respondents never delivered any lecture to make aware users. It is concluded from the study...
that one to two lectures per year can be fruitful in making awareness thereby controlling plagiarism.

**3.8 Number of Times Meetings held by Librarian**

Librarian should conduct a meeting periodically with the faculty members, educators, etc. to discuss the issue and resolving in proper way. It is shown in the Table 6 that 63.64 per cent respondents’ conducts meeting for one to two sessions per year; whereas 31.82 per cent respondents never conducted any meetings of the faculty members, educators, head of the Departments, etc.

**Table 6. Number of times meetings held by librarian**

<table>
<thead>
<tr>
<th>Meetings</th>
<th>Response (n=110)</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to two sessions per year</td>
<td>70</td>
<td>63.64</td>
</tr>
<tr>
<td>Three to four sessions per year</td>
<td>3</td>
<td>2.73</td>
</tr>
<tr>
<td>More than five sessions per year</td>
<td>2</td>
<td>1.82</td>
</tr>
<tr>
<td>Never</td>
<td>35</td>
<td>31.82</td>
</tr>
</tbody>
</table>

**3.9 Types of Plagiarism Prevailed.**

Plagiarism is performed in many ways and many forms that depend on situations which is percept by the librarians differently. In this view, the library professionals were asked to reveal their observations with regard to prevailing nature of plagiarism committed by the students, research scholars and faculty members. Table 7 shows that 61.81 per cent respondents pointed out at UG students and 26.36 per cent respondent pointed out at PG students for involving in ‘Paraphrasing without giving credit to original author’ while less than 10 per cent respondents pointed out at research scholars and faculty members for such type of plagiarism.

Further, it is found from the Table 7 that 70 per cent librarians pointed out at UG students and 20.90 per cent librarians pointed out at PG students who commits ‘Copy text word by word’ type plagiarism whereas such type of plagiarism is found rare among the faculty members and research scholars.

It is also found from the study that 72.73 per cent librarians found UG students and 22.72 per cent librarians found PG students, and 4.54 per cent librarians found RS for involving in ‘Invented/manipulated references or bibliography’ type of plagiarism while it is interesting to know that faculty members do not involve in this type of plagiarism which shows their referencing skills.

Similarly, it is indicated in the study that 63.64 per cent respondents pointed out at UG students and 29.09 per cent respondents pointed at PG students, 4.54 per cent respondents pointed at RS and 2.72 per cent respondents pointed out FM found for involving in ‘Copy work from internet and submit as your own’ type of plagiarism.

Consequently, it is found from the study that awareness of plagiarism among UG students is very less that attracts them to plagiarise and it may be observed that RS and FM have sound knowledge about plagiarism and other skills like paraphrasing, referencing, citing and writing skills built confidence into them and they avoid such academic misconduct.

**3.10 Reasons Behind Plagiarism**

There are many reasons behind the ill act of plagiarism that coerce the users to conduct plagiarism. The respondents were asked to indicate their perception regarding reasons behind committing plagiarism by the students. It is found from the Fig.1 that 38.18 per cent strongly agree, 57.27 per cent agree that lack of awareness is a reason behind plagiarism while 10 per cent respondents strongly disagree that lack of awareness is a reason of plagiarism.

Similarly, 29.09 per cent strongly agree, 12.72 per cent agree, that language barrier is a reason for committing
plagiarism while 19.09 per cent respondents disagree that language is a barrier as a reason behind plagiarism act.

It is interesting to note that a good percentage (50.90%) of respondents agrees that academic pressure is a reason for plagiarism while 19.09 per cent respondents disagree with this.

Further analysis shows that a good percentage (57.27%) of respondents agrees that lack of fast and proper rules and regulation is a reason for plagiarism. A good percentage of respondents also agree that lack of skills to paraphrase, summarise or citation/referencing is a reason for plagiarism.

The researchers concluded from the above analysis that lack of awareness, academic pressure, lack of fast and proper rules and regulations, and lack of skills to cite, paraphrase, summarise or citation/referencing are the reasons behind plagiarism in view of the librarians and information scientist. Fig.1 depicted that maximum respondents are agreed for reasons for lack of awareness, academic pressure and lack of fast and proper rules and regulations which deviates the students from the actual work.

3.11 Plagiarism Avoiding Skills

It is found from the study that the good majority (89.09%) of respondents advocated that skills on how to make reference and ‘How to Quote’ (70%) the documents can be helpful in avoiding the plagiarism activities while a total of 50.91 per cent respondents thinks that skills on ‘How to Paraphrase’ and ‘How to summarise the text’ is necessary to avoid the plagiarism. These skills should be developed among the users to avoid the plagiarism as a result producing the quality research work.

4. CONCLUSION, DISCUSSION AND RECOMMENDATIONS

Plagiarism is a matter of sprits of research and it must be kept alive at anyhow. Without this spirit, academic integrity and dignity of research and education cannot survive with high values. Whatever reasons are there should be find out and resolved in the right direction under the designed regulation and laws. Many plagiarism detection tools and techniques can be used as weapons to fight with this growing disease for which Librarians can play an instrumental as well as crucial role to stem out this phenomenon from the academic ground. Librarians play a key role in making aware the users about the plagiarism through different social media and media like Institute Websites, Library Portals, and also use the methods to teach the users about plagiarism misconduct through Orientation Programs, Notices and websites, and also may helpful in framing the plagiarism policy.

Librarians should convene frequent meetings physically or virtually per year with the Head of Department, Faculty Members, research scholars to discuss the issue and its mechanism to combat this disease. Plagiarism is compromise with quality of research and intellectual assets. In the regulation and policies of institutions and universities, total quality techniques may be applied to increase the quality of research activities in the premises.

Sound training and skills development programs on how to make reference and how to quote the documents, how to paraphrase and how and why to cite in scientific way is necessary and should be conducted frequently to produce plagiarism free content thereby increasing the research productivity of the academic community.

It is observed that lack of knowledge on reference management tools leads to the unintentional plagiarism act. The institutions can organise the training programmes / workshops to make the faculty and research scholars familiar with open-source software which can enhance the skills of reference management.

From the above study, it is recommended that during framing of plagiarism policy, librarian should be consulted by the educators to make the policy effective and bring an efficient regulatory guideline to combat the plagiarism. Plagiarism is misconduct and its guilty shall be called for disciplinary action as per the existing provisions of University Grants Commission while as appreciation for plagiarism free project works at Bachelor courses levels should be started. Anti-plagiarism regulation should be enforced by the Research Development Council or Intellectual Property Rights Cell of Institutions on finding out any research misconduct.

REFERENCES

1. Bruwelheide, J.H. Plagiarism: Trends, thoughts,


26. Gunnarsson, J.; Kulesza, W.J. & Pettersson, A. Teaching international students how to avoid plagiarism: Librarians


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