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Maintaining the research and publication standards in HEIs: What can knowledge managers do?

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ABSTRACT

India's Education sector is in for a grand transformation thanks to the introduction of the National Educational Policy 2020. The present government is also focusing heavily on the country's higher education sector and wants it to be on par with its international counterparts in terms of quality in research and publication. With this changed backdrop, the modern day librarians of HEIs are no longer reckoned as mere custodians and gatekeepers of traditional knowledge resources; they are vested with the job of educating the research scholars about research and publication ethics, citation styles, provide insights into free, copyrighted material and creative commons licensed content, online resources, check the research outcomes for plagiarism and play a significant role in the Academic Integration Committees of their institutions. This paper deliberates on the enhanced role of librarians as the knowledge resource managers in ensuring the quality standards in research and publication.

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1. Introduction

India is the second most populous country in the world with about 138 crore population. To cater to the aspirations of the youth seeking higher education, several colleges and universities have been established across the length and breadth of the country. According to the UGC website, as on 22 November 2021, the country has the following number of universities:¹

However, India's performance on global research outcomes is not very encouraging. The data published by international agencies such as the Nature Index based on counts of high-quality research outputs in the previous calendar year revealed that India ranked 13 in the world research outputs in the year 2021.²

The only way to improve this rather disheartening scenario is by focusing on improving the quality of higher

Table 1: Total number of universities in india (Courtesy: ugc.ac.in)

Universities	Total No.	Universities under 12(B)	Total No.
State Universities	442	State Universities	259
Deemed to be Universities	126	Deemed to be Universities	48
Central Universities	54	Central Universities	54
Private Universities	397	Private Universities	20
Total	1019	Total	381

education. While the attainment of educational objectives and learning outcomes are primary focus of secondary education, research and publication are the thrust areas of higher education. If a country wishes to improve the

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Table 2: Nature index country-wise research outcomes from 1 January 2020 to 31 December 2020

Rank	Country/territory	Share 2020	Share 2021	Count 2021
1	United States of America (USA)	20,192.40	20,677.88	29,207
2	China	13,591.27	14,256.26	19,084
3	Germany	4,559.46	4,750.31	9,308
4	United Kingdom (UK)	3,781.73	3,874.29	8,209
5	Japan	3,033.93	3,278.92	5,294
6	France	2,251.55	2,224.29	5,109
7	Canada	1,606.20	1,626.95	3,589
8	South Korea	1,436.43	1,520.20	2,541
9	Switzerland	1,491.03	1,441.55	3,299
10	Australia	1,265.62	1,309.66	3,140
11	Spain	1,168.03	1,238.63	2,959
12	Italy	1,037.28	1,134.30	2,896
13	India	1,041.52	1,039.07	1,654
14	Netherlands	933.31	971.99	2,545
15	Sweden	626.47	698.88	1,925
16	Israel	610.35	641.82	1,284
17	Singapore	608.75	635.18	1,295
18	Russia	468.24	533.79	1,451
19	Belgium	413.06	433.12	1,289
20	Taiwan	372.75	421.15	1,031

quality of its higher education sector, it needs to lay great emphasis on the quality of research and publication of the research outcomes in quality journals conforming to the international standards. Realizing this, the government of India has been underscoring quality aspects in research in HEIs and is initiating systematic reforms in upscaling the research facilities and emphasizing on quality research outcomes and publication standards. Provisioning of Rs 50,000 crore over five years towards the National Research Foundation (NRF) to boost R&D is one such milestone reform in this direction.

The Government of India, particularly the present dispensation has been initiating several reforms in higher education to bring in the quality aspects in the research. The government aims to make India's education system an '*Atmanirbhar*' one and towards this goal, several initiatives have been commenced. The National Education Policy (NEP) 2020, National Language Translation Mission (NTLM), National Digital Educational Architecture (NDEAR) that focuses on teaching and enhance blended, experiential and immersive learning are some of the noteworthy steps in this direction. The government has also increased the budgetary allocation towards e-learning by 45 per cent. A new scheme named 'PM e-Vidya' has been launched to provide multi-modal access to education for teachers and students.

To provide clarity in the introduction of academic programs in various educational institutions, the

government of India has also established Higher Education Commission of India that works towards standard-setting, accreditation, regulation and funding.

2. Librarians as the Modern-day Knowledge Resource Managers

The academic library has traditionally been called the 'heart of the university', a quote attributed to Charles William Eliot, president of Harvard University from in the late nineteenth century.³ Public libraries are generally conceived as the lifeblood of the community. Various education commissions such as the Radhakrishnan Commission, Kothari commission, etc., have acclaimed the academic libraries as the soul of the higher education institutions. However, it is unfortunate that the librarians are hardly involved in the research policy of the institution. There is a mistaken view that research and publication is the forte of the faculty members and the librarian has the only role of accessioning the books and journals purchased them! In fact, ideally the librarian has to be involved at the very beginning, as and when any of the faculty members receives research grant and the head of the institution must convene a meeting with the librarian, the concerned faculty member, head of the department to plan for the necessary resources for strengthening the research environment of the institution. Such concerted efforts would enable the institution to develop a very strong knowledge resource center. However, such an ideal environment has never prevailed in the higher education institutions. Fortunately, times are changing.

With increased focus on higher education sector in the recent years, it is abundantly clear that the thrust areas in the coming years in the higher education sector are going to be research and publication. The librarians as the knowledge resource managers have a very significant role to play in providing impetus to these areas. The modern-day librarians of HEIs are no longer reckoned as mere custodians and gatekeepers of traditional knowledge resources; they are vested with the job of educating the research scholars about research and publication ethics, citation styles, provide insights into free, copyrighted material and creative commons licensed content, online resources, check the research outcomes for plagiarism and play a significant role in the Academic Integration Committees of their institutions. The Maharashtra Public Universities Act, 2016 changed the nomenclature of libraries to knowledge resource centers with a view to redefine the ambit and scope of these storehouses of knowledge. The librarians in their new avatar as the Directors of Knowledge Resource Centers can play a pivotal role in:

1. Establishing invisible college
2. Starting in-house research journal
3. Establishing DAIC and IAICs

4. Familiarizing research methodology to PG students
5. Recasting the whole research environment
6. Designing innovative curriculum and syllabus with thrust on citation styles, accessing and referencing e-resources, the evil of plagiarism, etc.

3. The UGC's Research and Publication Reforms

The UGC has begun initiating several reforms in the higher education sector with a view to reign in on increased incidence of compromised publication ethics and deteriorating academic integrity. The knowledge resource managers can and shall play pivotal role in achieving the desired objectives. Some of the important UGC initiatives and how the librarians aka the knowledge resource managers can contribute their might are discussed below:

3.1. UGC guidelines for PhD, 2016 & 2018

With a view to contain and thwart unethical practices indulged by the students, faculty members and research scholars in the HEIs, the UGC vide its guidelines for PhD issued in the year 2016 has recommended establishment of Departmental Academic Integrity Committee and Institutional Academic Integrity Committees by all the higher education institutions. These guidelines have later been recast into the 'University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations', 2018. One of the objectives of these regulations is to establish institutional mechanism through education and training to facilitate responsible conduct of research, thesis, dissertation, promotion of academic integrity and deterrence from plagiarism. These regulations also aim at creating awareness about responsible conduct of research and prevention of unethical practices including plagiarism in academic writing among student, faculty, researcher and staff.

These regulations mandate that each department of a higher education institution must constitute a department level academic integrity panel (DAIP) for the assessment of academic and research work done by a student or a faculty or a researcher or a staff, in the form of thesis, dissertation and publication of research papers, chapters in books, full-fledged books and any other similar work, leading to the partial fulfillment for the award of degrees at Masters and Research level.⁴ The job of this panel is to ensure academic integrity and originality in the research and publication outcomes of the respective departments of the Higher Educational Institutions (HEIs). A similar structure at the apex level of the institution named as Institutional Academic Integrity Panel (IAIP) which oversees the overall research outcome of the institution is also recommended to be set up. The structure of DAIP and IAIP as recommended by the UGC is as follows:

Table 3: Composition of DAIP and IAIPs

Chairman: HOD.	Chairman: Pro VC/Dean/Senior Academician of the HEI.
Member 1: Senior academician from outside the dept to be nominated by the Head of HEI.	Member 1: A Senior academician other than the Chairman, to be nominated by the Head of HEI.
Member 2: A person well versed with anti-plagiarism tools, to be nominated by the HoD.	Member 2: Nominated by the Head of HEI.
	Member 3: A person well versed with anti-plagiarism tools, to be nominated by the Head of HEI.

The librarians of the higher education institutions shall invariably be chosen as the second member of the DAIP and the third member of the IAIP owing their expertise in handling the plagiarism software. The librarians have the knowledge, necessary training and wherewithal to identify plagiarism related malpractices and so are the right choice for the above responsibility.

3.2. Research and publication ethics

In its 543rd meeting held on 9th August 2019, the University Grants Commission has approved the proposal to introduce a compulsory two credit point course for all Ph.D. students in the pre-registration coursework.⁵ This is done with an objective to create awareness among the research scholars about publication ethics and caution them against publication misconduct. The UGC also plans to make this course available soon for the postgraduate students as well. The UGC regulations 2018 mandate the HEIs to:

1. Include the cardinal principles of academic integrity in the curricula of Undergraduate (UG)/Postgraduate (PG)/Master's degree etc. as a compulsory course work/module.
2. Include elements of responsible conduct of research and publication ethics as a compulsory course work/module for Masters and Research Scholars.
3. Include elements of responsible conduct of research and publication ethics in Orientation and Refresher Courses organized for faculty and staff members of the HEI.

The librarians as the directors of knowledge resource centers are the most apt and appropriate resource persons for imparting necessary awareness to the students, faculty members and research scholars. The HEIs running UG and PG programs, research centers conducting PhD coursework and UGC HRD centers organizing Orientation and Refresher Courses must make it a point to invite the librarians to sensitize the incumbents. The role librarians can play in educating the scholars and academicians about plagiarism related issues cannot be overstated.

3.3. Organization of awareness programs and training about research misconduct and unethical publication practices including plagiarism

It has been reported that the percentage of research articles published in predatory journals is high in India.⁶ Beall⁷ points out that these malpractices are perhaps more acute in India than anywhere else, as new predatory publishers or journals emerge each week in the Indian publication industry. He adduces it to the tenure and promotion related compulsions of hundreds of thousands of scientists in India and its neighboring countries who need to get published. He points out that many predatory publishers set up websites that closely resemble those of legitimate online publishers, and publish questionable and downright low-quality journals. Many purport to be headquartered in the United States, United Kingdom, Canada or Australia but really hail from Pakistan, India or Nigeria.⁷

To combat this menace, the UGC regulations recommend all HEIs shall conduct sensitization seminars/awareness programs every semester on responsible conduct of research, thesis, dissertation, promotion of academic integrity and ethics in education for students, faculty, researcher and staff. The UGC also recommends all the HEIs to instruct students, faculty, researcher and staff about proper attribution, seeking permission of the author wherever necessary, acknowledgement of source compatible with the needs and specificities of disciplines and in accordance with rules, international conventions and regulations governing the source. The research scholars, academicians and students must also be familiarized with the penalties imposed for plagiarism and other consequences. The scholars must also be acquainted with various citation styles, creative commons licenses, free resources, etc. Needless to say, this job can be best handled by the knowledge resource managers.

3.4. To develop systems to detect plagiarism and to set up mechanisms to prevent plagiarism and punish a student, faculty, researcher or staff of HEI committing the act of plagiarism

The INFLIBNET center, an autonomous body instituted by the UGC has deployed several plagiarism detection systems (PDS) and made them available to all the University Librarians/Directors of Knowledge Resource Centers of the University. Training is also imparted by the INFLIBNET to all the interested Librarians about handling of plagiarism detection software such as Turnitin, Urkund, etc. The UGC regulations 2018 mandate establishment of facility equipped with modern technologies for detection of plagiarism and training the students, faculty, researchers and staff for using plagiarism detection tools and reference management tools. These regulations also encourage student, faculty, researcher and staff to register on international researchers'

registry systems.

To curb the malpractice of plagiarism, it is mandated that HEIs shall declare and implement the technology-based mechanism using appropriate software so as to ensure that documents such as thesis, dissertation, publications or any other such documents are free of plagiarism at the time of their submission. Such a mechanism shall be made accessible to all engaged in research work including student, faculty, researcher and staff etc. The university librarians are thus provided with the plagiarism detection software and necessary training by the INFLIBNET center to effectively address this issue at the university level.

The regulations also recommend the HEIs to develop a policy on plagiarism and get it approved by its relevant statutory bodies/authorities. The approved policy shall be placed on the homepage of the HEIs website. Drafting the plagiarism policy of the institution is only possible by involving the librarians in the Research Ethics Committee of the respective institutions.

Further it is also mandated that all the HEIs shall submit to INFLIBNET soft copies of all Masters, Research program's dissertations and thesis within a month after the award of degrees for hosting in the digital repository under the 'Shodh Ganga e-repository' and this task is vested on the shoulders of the librarians. HEIs are also directed to create Institutional Repository on institute website which shall include dissertation/thesis/paper/publication and other in-house publications, a job only the librarians as the knowledge resource managers can handle.

4. Conclusion

Since the last decade there have been several academic reforms initiated by the government in the higher education sector through its arm, the UGC. These reforms have their main focus on enhancing the research and publication standards. Librarians as the modern day knowledge resource managers have a very important role to play in the upkeep of the quality of the research and publication of their respective institutions. All the stakeholders of higher education look upon the librarians to shoulder the responsibility of familiarizing, sensitizing and educating the students, scholars and faculty members about the need for maintaining quality standards in their research and publication of research outcomes and the consequences of unethical practices. It is time the heads of the institutions recognize the important role the facilitators of modern day resources, i.e., the librarians can play in bringing positive changes to the research milieu of their institutions and involve them in every research related activity of their respective institutions.

5. Source of Funding

None.

6. Conflict of Interest

None.


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