GUEST EDITORIAL

Integrity in Education and Research

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Universities and higher educational institutions in the country or across the globe create new knowledge through their study of the existing ecosystems along with the constraints and challenges that lie therein. The most crucial tool in the box towards solving these gaping issues happens to be academic research. The knowledge generated at these epicenters address the problems, related to health, climate change, sustainability among many others. The findings of the research offer substantial breakthroughs to enhance the living standards of the people, better utilisation of the limited resources and preservation of the planet.

With the changing and ever-growing role of the institutions of higher learning and universities in particular research has become all the more crucial. There is hardly any domain where universities and the scholars don't have a role to play. With spectacularly arrayed disciplines coming under the ambit of education, the researchers have a ringside view of the world problems. If we pick up any instance of authorities dealing with contemporary issues, we are sure to find a few academics in the core team. Academics and particularly the hard research has emerged as the new go-to guy.

With so much riding on the research, any dilution of its sanctity would bring down the entire edifice of progress and development. Any laxity on the rigorous methodologies or standards procedures may prove very catastrophic for all the stakeholders and the community as a whole.

Sadly it has been observed worldwide that researchers often indulge in misconduct while pursuing their education and research enterprises. Misconduct refers to a gamut of wrong practices like plagiarising, fabricating or falsifying data, manipulating images or pictures to substantiate their finding; reporting selectively to support their research objectives. The menace of gift and ghost authorship is also prevalent across academic and research intelligence. Any of this dilutes the quality of research and questions the authenticity of the resulting knowledge.

Academe and all stakeholders therein staunchly advocate for the utmost integrity in research. Concertedly they have underlined the highest standards and strict adherence to quality and rules for research and any scholarly communication. Quoting John W. Gardner would not be out of context here, as we spotlight excellence and integrity He said, "the society which scorns excellence in plumbing as a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy: neither its pipes nor its theories will hold water." Excellence should be the norm as such in all arenas but more so in research since that decides so much about everything else that emanates.

The prevalence of misconduct in education and research has a very detrimental impact on society, as it is the ultimate beneficiary of the research findings and their practical implications while the scientific literature which is generated is erroneous and it becomes the foundation for future research. A substandard piece of research would result in an unreliable and invalid piece of knowledge which can be simply disastrous as it is a fallacious piece of information to take as a referential point.

The reverence academe enjoys because of its profound knowledge, emanating from solid research would suffer an unsavoury setback with any decline in the standards of research and the followed methodologies Any kind of misconduct erodes the trust in these institutions of higher learning. The same should be avoided at all costs. Besides the loss of the halo of the scholarly community, a bigger loss would be that efficacy of our theories and knowledge; a fact that no sane society could afford.

Some of the disturbing trends include the emergence of predatory journals, which are 8000 + in number at present[1]. They owe their existence to a pretty good extent to open access publishing, which has immensely widened the access to the information for the user community. The predatory journals also are known as pseudo or hijacked journals along with fake, bogus or vanity conferences[2] have vitiated the integrity and piety of the information landscape, which otherwise should be inviolable in letter and spirit. J. Beall, a librarian, has worked relentlessly to expose the predatory publishing and their detrimental effects on the science and researchers who publish in them[3]. Publishing and participating in predatory and bogus conferences also amount to misconduct. The predatory journals and vanity conferences do not follow peer review procedures, solicit submissions through repeated e-mails and charge exorbitant author processing charges (APC) and publish whatever is submitted to them. They invite authors to become members of their editorial boards or reviewers. The new researchers with limited academic and research

experience fall prey to the temptations offered in the garb of promises and commitments. Bogus conferences use the name of senior scientists to attract participation and registration fee, promote their meetings by giving those names which are deceptively similar to other well-established meetings and refuse to refund registration fees, even if they are cancelled. It is very disheartening to note that the researchers from some of the very reputed IITs and NITs also publish in predatory journals[4].

There are associations and bodies like, COPE, WAME, and OASPA which have given guidelines for authors, reviewers and publishers to follow[5]. UGC, India has notified regulations to ensure compliance with honesty and integrity in education and research across the country[8]. The major publishers have incorporated the use of anti-plagiarism tools and techniques in their editorial and peer review procedures. The acronym, "TRAGEDIES" hits the nail right on its head while summarizing the factors leading to misconduct in research. These factors are "temptation, rationalisation, ambition, group and authority pressure, entitlement, deception, incrementalism, embarrassment and stupid systems"[9]. It has been observed that these are the stumbling blocks.

Bringing forth the issue, we intend to centerstage the disquieting trend which is rising across the academic and research world. Researchers have tried to focus on the subject of plagiarism and other prevailing obliquities of the ethics of research. It serves no end, is uncalled for and infructuous. This has to be brought up before the scholarly community, weaning them away from the malpractices that have crept in and showing them the downsides. The contributors share diverse perspectives. There are three papers which focus on the basic concepts of plagiarism, literature review and a bibliometric study to showcase how the subject has evolved during the last ten years at the global level and India's contribution to the field. In another paper, the experts have studied the competency levels of social science researchers in using the information responsibly and have spotlighted that their skills are abecedarian which need to be honed to ensure judicious use of information.

The publishers have well-documented retraction policies for announcing and publishing retractions, once misconduct is detected and comes to the fore after the research is published. A group of researchers have analysed the retraction notices of science journals and have found that a minuscule number of announcements have stated the reasons behind the withdrawal of published articles; the significant reasons of retraction are the use of plagiarised, falsified data and manipulated images and figures.

Two of the papers elaborate on the policies formulated in the country and around the world for undertaking academic and research enterprises. The researchers have critically analyzed the systems and reasons which compel the stakeholders to cut corners and succumb to temptations, losing their integrity in the process.

Another four deal with different vital topics. One paper dwells on various segmentation methods for developing OCR system for different scripts; in particular, zeroing in on the technique of segmentation for Brahmi script based Rummindei inscription. Another viewpoint offers insights into the perceptions of academic and practising lawyers towards using legal information resources and the involved challenges.

Another voice brings to the table the preference of undergraduates of Landmarks University Omu-Asan, Kwara State, Nigeria. It shares a very interesting and thoughtful treatment of the variables like age, course and level of study which play a significant role in the choice of format of information sources. Unanimously the researchers have recommended that libraries should maintain hybrid collections to cater to the teaching, learning and research needs of the user community. Riveting is the bibliometric study which details the deployment of drones for different applications and the quantum of literature available on them. That is the wonder of academe- our dialogues are wide-ranging, yet the conversation segues effortlessly from morals to drones.

Libraries need to sensitize all the stakeholders concerned towards the gravity of the issue. Leveraging their skills of advocacy, information dissemination, and awareness, libraries have to counter the rising tide of misconduct and predatory publishing. All libraries across the globe from school to university level have to shoulder the responsibility of mentoring the students and instilling the right moral and ethical values which will transform the students into conscientious researchers and professionals. It is the academe that needs to mould young, malleable minds into critical and analytical thinkers. Seated before the teachers in their classrooms is the future of our country. They would hold high offices, take policy decisions and run the affairs of the country. The teachers have to infuse them with the right ideals, standards, and integrity and thought process. They have to train them how to think with the references of virtue and logic and how to say no to vice and evil. The library professional and teachers can create a social order of their choice, provided they treat and train these young minds well. The best part is that it is a very doable proposition if the stakeholders decide to go for it. And libraries and classrooms may play a stupendous role. Libraries and classrooms need to sow the seeds of hard work, dedication, reading, assimilating, generating and synthesizing new ideas in children in their formative years.

As of the role of monitoring by the authorities, these must audit the departments with the proper recommendation to get the desired effects. The regulatory bodies should not solely emphasize on the number of publications for evaluation and career progression; they should award quality rather that quantifying publications. Every researcher worth his salt knows a watery piece of research is worse than anything. It blotches one's name and eats into the good work one has done over the years. Integrity is a currency that will never go out of circulation.

REFERENCES
1. Shen, C. & Björk, B.C. 'Predatory' open access: a longitudinal study of article volumes and market characteristics. *BMC Medicine*, 2015, **13**(1), 230. doi: 10.1186/s12916-015-0469-2
2. Eaton, S.E. Avoiding predatory journals and questionable conferences: A resource guide. 2018.

doi: 10.11575/PRISM/20

3. Beall, J. What I learned from predatory publishers. *Biochemia Medica: Biochemia Medica*, 2017, **27**(2), 273-278.
doi: 10.11613/BM.2017.029

4. Gopalakrishnan Saroja, S., Santhosh Kumar, J.U., & Hareesha, A.S. India's scientific publication in predatory journals: need for regulating quality of Indian science and education. *Current Science*, 2016, **111**(11), 1759-1764.
doi: 10.18520/cs/v111/i11/1759-1764

5. Committee on Publication Ethics. https://publicationethics.org/ (Accessed on 26 February 2019).

6. World Association of Medical Editors. http://www.wame.org/(Accessed on 26 February 2019).

7. Open Access Scholarly Publishers Association https://oaspa.org/ (Accessed on 26 February 2019).

8. UGC. Promotion of academic integrity and prevention of plagiarism in higher educational institustions regulations, 2018. https://www.ugc.ac.in/pdfnews/7771545_academic-integrity-Regulation2018.pdf (Accessed on 26 February 2019).

9. Gunsalus, C.K. & Robinson, A.D. Nine pitfalls of research misconduct. 2018. Retrieved from https://www.nature.com/articles/d41586-018-05145-6 (Accessed on 26 February 2019).