

## *Short Communication*

### Stemming misconduct in higher education and research

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The paper dwells upon different forms of misconduct which prevail in higher education and research. It throws light on the draft policy of UGC, India, which aims to ensure integrity and honesty in education and research. It advocates that all the stakeholders like authors, researchers, administrators, funding bodies and editorial boards need to shoulder the responsibility of promoting and maintaining conformity to the norms of scholarly communication.

**Keywords:** Academic misconduct; Fabrication; Falsification; Plagiarism; Integrity; Honesty

Universities serve the twin purposes of furthering higher education and research. For research to be meaningful, it has to be well-grounded in facts, and observations have to be valid and relevant. But sometimes, as with other things, research also suffers owing to unethical practices.

According to ORI<sup>1</sup>, research misconduct includes fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting of the research results. Fabrication is making up data or results and recording or reporting them. Falsification is manipulating, distorting, orchestrating, misrepresenting or omitting processes, methods or data which the researcher collected. Stealing somebody's intellectual property is not only unethical but also, defeats the very purpose of the research. It undercuts the applicability of the findings. Plagiarism is the appropriation of another researcher's ideas, processes, results, or terms without giving due credit or acknowledging the source.

The essential feature of any academic or research activity is reproducibility, which means that others should be able to redo it and arrive at similar results. Many a time, it is not possible to replicate the experiments for similar results as the earlier study would have been carrying fabricated or falsified data. This problem has been termed as "replication crisis." It has been observed that 2% of the researchers falsify data to suit their convenience. This is a conservative estimate as it is likely that more instances remain hidden or unreported. Fanelli<sup>2</sup>, George and Buysse<sup>3</sup> and Allen<sup>4</sup> have reported this behaviour in medical, social and life sciences. Furthermore, Normile<sup>5</sup> has mentioned that the issue of image manipulation or image splicing has assumed serious proportions for which researchers have been penalized Shuchman<sup>6</sup> has highlighted that in image manipulation, the researchers publish microscopic images which do not match with the original data.

Shafer<sup>7</sup> has defined four types of plagiarism. Intellectual theft involves copying from published source, without acknowledging the source, appropriating the credit to oneself, to gain credit for the scholarship. Quite close to it is the intellectual sloth that covers instances of copy-pasting of the text without even slightest change in the script or idea contained therein. Many a time, non-Anglophones pick up the text to conform to the linguistic standards required by the research. Self-plagiarism is when an author takes excerpts from his or her past works. Duplicate or redundant publication which is a kind of self-plagiarism encroaches upon precious journal space.

Salami-publishing is when researchers resort to reporting their research findings through as many publications as possible. It is unacceptable practice in research because it can distort the literature and the readers may think that the data presented in a multitude of publications has been derived from different samples. Farthing<sup>8</sup> has specified that other infractions may include bias in data analysis and reporting, disputes about authorship (gift and ghost), inadequate supervision, inappropriate image

manipulation and misreporting of errors. These questionable research practices affect research output and culture adversely.

Research brings in funds, reputation, and status to the faculty and their institutions. This allure of fame is too tempting and sometimes in the absence of research proficiency, temperament and willingness to invest oneself entirely, some researchers resort to infringing IP rights of others and plagiarising. Other factors may include peer pressure, deadlines, incompetence, shortage of time, ambitions for good grades and promotions. Lack of institutional policies to deter the students and researchers from misconduct can also be one of the factors.

McKenzie<sup>9</sup> has referred to the Internet as an “electronic shovel” used by students to dig big chunks of information, copy and paste. Very often inadvertent plagiarism results from a lack of citation and referencing skills.

### Impact of misconduct

Research based insights go into making of public policy, scientific inventions, government projects and business decisions. If the basic premises are fallacious, then the edifice built on them would be shaky. Furthermore, a fake or bogus research is waste of the time, resources, and efforts of all the stake holders- the scholarly community, government, businesses and society who use the ‘knowledge’ so produced.

Detection of research misconduct is dealt in different ways. Article retraction is a mechanism to withdraw an already submitted article for a variety of reasons. At times to correct errors while at other occasions for unsavoury reasons, as it was based on fabricated or false or plagiarised data. The growing number of retractions has led to the blog “Retraction Watch” (<http://retractionwatch.com/>) that keeps track of all retracted articles. Fang *et al.*<sup>10</sup> highlighted that some 2047 biomedical and life science research articles indexed by PubMed and later retracted, were analyzed and it was found that 67.4% of them were retracted on account of academic misconduct of either falsification, fabrication or plagiarism.

Recently, the University Grants Commission (UGC) has come up with a draft policy known as, “Promotion of Academic Integrity and Prevention of

Plagiarism in Higher Education Institutions Regulations,2017”<sup>11</sup>. The new draft policy aims to promote and ensure academic and research integrity, implement and extend anti-plagiarism software and services to the universities in the country. The draft policy focuses on elimination of plagiarism in academic and research endeavors in universities across the country. It also mentions that there would be “zero tolerance” for plagiarised content in core areas of theses and dissertations. The abstracts, summary, hypotheses, results, recommendation, and conclusion have been defined as core areas.

The policy recommends that Plagiarism Disciplinary Authority (PDA) and Academic Misconduct Panel (AMP) be constituted to monitor and guide academic conduct and control acts of infraction in scholarly communication in universities across the country. Further, it will be mandatory for the universities to submit digital copies of the full text of Ph.D thesis to open access Shodhganga repository.

The draft policy has graded plagiarism into three different levels. According to it, the similarity of up to 10% is permissible. The similarity of over 10% to 40% has been designated as Level-1. The students whose works or manuscripts have a similarity of Level-1 will have to revise and resubmit their works within six months. Level-2 indicates similarity of over 40% to 60%. The students whose work is at Level-2 will have to redo and resubmit their work after 12 but before 18 months. Level-3 denotes similarity of over 60%. If any work has more than 60% similarity; the student will have to forego her/his registration for the course, in which s/he is enrolled. Likewise, the policy has graded plagiarism and spelled corresponding penalties for faculty, staff, and researchers working in the universities across the country.

However, the draft policy of UGC does not address the issue of academic and research conduct holistically. It deliberates on the subject of plagiarism only. The points of falsification and fabrication of research data, image manipulation, are equally serious concerns and need to be addressed. The policy is silent on these critical issues.

As per the UGC Notification 2009 too, it is mandatory for the universities to plagiarism- check M.Phil. and Ph.D. theses. This can be done with online plagiarism checking tools. All UGC funded

universities are equipped with these tools either through INFLIBNET or individual subscription.

But we should be clear in our minds that anti-plagiarism software is no pixie dust to check plagiarism. These will only point out the matching text. Unfortunately, humans can always outsmart them. Also, these cannot differentiate between the universal truths, common knowledge of the subject and the plagiarised content. It needs the diligence of human intelligence and scrutiny.

The onus of stemming plagiarism menace lies on all stakeholders like authors, researchers, university administrators, funding bodies and editors of the scholarly journals.

The supervisors and library professionals should sensitise researchers to the issue of academic and research misconduct, developing an ecosystem that ensures a righteous conduct in academia and research.

Also, thought leaders need to tug at the conscience of the scholars reflecting on the gratifying and self-satisfying elements that come with genuine original research. It calls for a disruption-disrupting some of the less wanted elements of human nature like intellectual sloth, temptation to give in to quick and easy gains and transiting towards integrity.

On the regulatory front, quality should be valued over quantity. Retracted article should be in public domain and academically ostracised. The reviewers must communicate to the editors if they have conflicting interest, lack of background knowledge in a particular field to give their opinion. At the university level, the instances of misconduct should not be downplayed, and the whistle blowers should be accorded full protection against any reprisal.

Research needs scholars who are passionately invested in the idea and prepared to abide by honesty, fairness, objectivity, reliability, and accountability, some of the basic tenets of scholarly communication.

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