

Review Article

Research and Publication Ethics: A Mandate Process in ChatGPT and the AI Era

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A B S T R A C T

Civic societies cannot be developed in the absence of ethics. Therefore, it is the demand of the time to follow. When the government of any country makes a process mandate, it means something is going in the wrong direction, and to maintain quality, we are forced to follow the process mandate. In ancient times, ethics was being followed by civic societies and academic societies in a foolproof manner because things were in their initial stage and marching towards maturity. Therefore, through this process, we could have accumulated an ocean of knowledge in the form of documented literature. Gradually, access to the literature was available to all. For better, more qualitative, and prompt services, tools were developed. These tools made the literature available at the fingertips of end users. In the present time, technology is so fast, even at jet speed. As of now, we are enjoying the ChatGPT and AI technology, which are capable enough to address any query. Hence, technology is the main reason that compelled the government to implement research and publication ethics among the academic and research societies to control the production of duplicate content. In the present paper, we will discuss the open-access web platforms and the University Grants Commission Regulations 2018 regarding academic integrity, UGC CARE List and others so that we may understand the exact meaning of ethics in research and how to maintain it in the presence of technology. In the present time, predatory publications are available in the market, and it has been observed that scholars may get trapped, which is a serious concern for the HEIs and government because fake publications are totally useless and are never indexed by any indexing agencies. Therefore, through this paper, we will try to elicit the facts that are responsible for breaching ethics and to control what different agencies are doing.

Keywords: Research, Publications, RPE, UGC, CARE List, Ethics

Introduction

Since the inception of academic societies across the world, India has been the omphalos of every level in the education system, even today. However, education was imparted through the 'Gurukul' system. The pupils generally stayed inside the gurukul until the completion of their education. During their 'Diksha', the 'Guru' was the single voice or instrument who was responsible for imparting education to pupils. The guru used to teach and preach without any assistance, like teaching aids, books, or written materials. In ancient times, the purpose of education was to develop character, mental power, and reasoning so that the pupils could live happily on this planet or in a very civic manner. "Education implies discipline and the inculcation of the intellect, an intellect able to operate well in all fields." It enables the individual to know himself. Gradually, the 'Guruvani' started to accumulate in the form of 'Dharmagrantha' and literature started to publish. However, to preserve the thoughts, limited resources were available. The papyrus was used for recording the thoughts. "Parchment or the skin of the animals, principally those of sheep and goats, was also used. Vellum, or the skin of lamb or kid, was used for expensive writings, while for messages and notes, wax-coated wooden tablets". The recorded and accumulated knowledge was accessible to a particular group of people for a limited period of time. With the passage of time, the orientation of education has changed; even new innovative tools have been introduced and emerged.

"During the latter half of the fourteenth century, the term 'library' was defined in the Oxford English Dictionary as a place where books were kept for reading, study, and reference. By the nineteenth century, the word library denoted a room, set of rooms, or building containing a collection of books for the use of the public". Simply put, libraries came into existence and were regarded as public institutions. Though the concept of a library came into existence, access to the library and its material was limited; even the reader and scholar had to obtain prior permission from the caretaker of the library system, which was a time-consuming process. But with the passage of time, nascent technologies have reached the threshold of academics and libraries, which could change the orientation of both systems. The libraries in the environment of information and communication technology have undergone a drastic transformation in their traditional roles of collecting, organising, and preserving reading materials and disseminating information using conventional procedures and techniques. They have now transcended their four walls and employed the latest technologies to meet the emerging and pressing demands of well-aware seekers of information.¹

The speed of the development of digital content has increased with jet speed, and their accessibility in the public domain has also been started intensively. Technology has made remarkable changes in the pattern of information storage and retrieval. But with these facilities, the issues of copyright have also been raised in front of scholars and stakeholders. "Broadly speaking, by copyright is meant an exclusive, legally secured, right to publish and sell the substance and form of literary, musical, or dramatic artistic works," authors and website contents. Any person who reproduces the work of any original author without his or her prior permission violates his or her rights, called copyright. The same principle applies to making copies of a record.

The education system in India runs in a three-tiered manner, comprising primary, secondary, and higher education. Ethics are inbuilt into primary education to higher education because, without them, it is very difficult to impart quality education. Now the question that we need to ponder is, when ethics are inbuilt and the backbone of academics and research, then what is the need to address and discuss research and publication ethics, especially in higher education? In the 21st century (which is well known as information and communication technology and is more advanced with Open AI and ChatGPT), things are changing at jet speed.

After Google, it has been noticed that the availability of digital and electronic content has become easier. With the availability of digital and electronic content, the institutions have started to create their electronic repository containing curricula, syllabi, newspaper clippings, dissertations, theses, and research and review papers published by faculty members. Such types of repositories are the witnesses of the 'Web Revolution', especially in academic institutions. Most academic institutions, as of now, are working on the same concept, developing their curricula online and making them accessible to the public. This is not an exaggeration to say that the latest technologies are really powerful tools to change the orientation of academic societies and research activities, but many new and unaddressed issues and challenges have been put forth in front of academics that need to be addressed without delay because academics and research are not left out of the influence of technology. Technology has proven the slogan, viz. *दूरियों का मतलब, फायदे नहीं।* This is a perfect example of civic life. Therefore, the same thing happened in education as well. A plethora of information has been created on the web, wherein end users can access and get the information in the shortest possible time. However, getting relevant information from the information ocean is a big challenge. During the unprecedented challenge, i.e., COVID-19, technology has proven a boon because when everything was shut down, it became the bridge between

the classroom, teacher, and study materials, but it is the discretion of the end users whether the technology is being used for the benefit of society (whether civic or academic) or for different unfair means. The results will be accordingly.

Initiatives Taken by the Government to Promote Ethics in Publication

To provide authentic and relevant information in the shortest possible time, the government of India has taken the initiative and developed open learning platforms with the objective that everyone may participate in the rapidly changing world and ensure his or her contribution to its development. It has been observed that most of the institutions have financial constraints and are not able to provide access to vendor databases for their students and scholars, like Nature, Taylor & Francis, IEEE, the Institute of Physics, EMERALD, Scopus, Web of Science, JSTOR, Springer, the American Chemical Society, the American Institute of Physics, the American Physical Society, the American Society of Mechanical Engineering, the American Society of Civil Engineering, and many more. Hence, open learning platforms like the National Digital Library of India, SWAYAM-PRABHA, e-PG Pathshala, the Directory of Open Access Journals (DOAJ), and many more have been created by the government. However, the government observed that the purpose is defeated as duplicate research is being submitted by the scholars with little-bit changes in the previously published work, which has no meaning and cannot help to get the citations that are required for research metrics, i.e., h-index, g-index, i10, i20, and Altmetrics. Such research cannot contribute to the progress of a nation in general or a concerned institution in particular.^{2,3}

Further, the University Grants Commission, All India Council of Technical Education, Indian Agricultural Research Institute, Indian Council of Agricultural Research, and others have notified us that manuscript publications are so high, but in the international ranking, we are nowhere in the top 100–500 except for one or two institutions. Moreover, it has also been found that duplicate research is being conducted more, so in quantity, we are on the higher side but in quality, we are on the lower side. Therefore, predatory publication is also the biggest challenge for the stakeholders. Predatory publication has put forth so many challenges in front of the regulatory bodies. For a scholar, it is very difficult to differentiate between predatory and non-predatory publications. Predatory publication is very harmful to the research community because it is a fake publication that never participates in the citation process, and in the absence of citations, research metrics cannot be achieved. To overcome this problem, the University Grants Commission has taken the initiative and created a list of journals in the names of Group I and Group II. Under Group I, the journals listed fulfil the terms of UGC, and under Group II, the journals listed are indexed by different

recognised or renowned agencies. It gives scholars the sovereignty to choose the right and authentic journals for manuscript publications. Moreover, the UGC has prepared a list of cloned journals and kept them on its website, which is accessible in the public domain. This initiative will give some relief, but it is not a foolproof system because, from time to time, UGC has to filter the list so that predators may be identified well in time if any are added to the list inadvertently. However, it has to become more foolproof so that predatory journals may not get entered into the list at the initial stage.

University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations, 2018

To make students and scholars aware of all ethical issues, the University Grants Commission has taken the initiative to introduce the paper, viz., Research and Publication Ethics for Pre-PhD students, which is a credit-based paper. It will prove a milestone in this way because, at the initial stage of their doctorate programme, the scholars will be able to understand the basics of research and publication ethics. It will give scholars a direction on how they will conduct quality and original research. Copyright and plagiarism issues are there. Students are not aware, as these are written in a very enigmatical language. Therefore, the scholars cannot understand and follow the same. Research is a rigorous process, and to complete it successfully, a different kind of temperament and attitude are required. But our system is different because most people pursue their research for the sake of getting a job or for the sake of promotion. When they do research with this attitude, they never hesitate to use unfair means, as depicted by the many studies that have been conducted by different organisations. Further, plagiarism is the biggest issue as of now. The University Grants Commission has framed a policy on plagiarism and published it in 2018 in the Gazette of India. Even a self-plagiarism policy is available so that scholars may know how to cite their work if they take any material from their own previously published work. No doubt, this check will prove more productive in curbing and controlling plagiarism in research activities because it is implemented with the following objectives:

1. To create awareness about academic integrity and the fair conduct of research, theses, dissertations, project reports, and books.
2. To establish control mechanisms through training and education to facilitate plagiarism-free research.
3. To develop a system to detect plagiarism and create awareness about the punishments.
4. To make scholars aware of the remedies and role of

the Higher Educational Institute.

Further, in the same regulations, the levels of similarity have been defined so that scholars may understand what they have to do from the initial stage of their research to avoid plagiarism, and they may submit plagiarism-free research, which will contribute to getting better recognition in the research world.

Moreover, to control the submission of duplicate and unoriginal theses, a platform named Shodhganga Repository has been created by the Information and Library Network under the aegis of the University Grants Commission. This is the first of its kind not only in India but even at the global level. It is available in the public domain and a successful programme to control duplicate research because it contains more than 4 lakh of these databases on a single platform.^{4,5}

How Does Anti-Plagiarism Software Help to Control Duplicate Content?

Furthermore, to conduct plagiarism-free research, state-of-the-art deterrence tools are available, i.e., Turnitin, iThenticate, Cross-Check, Ouriginal (while URKUND), Drill Bit, EVE, WcopyFind, Word-Checker, and many more. These tools are capable enough to identify the level of similarity in the documents that are being uploaded for checking on the platform of anti-plagiarism software. These are very useful up to a certain level. However, individual ethics are very important and play a wonderful role in conducting authentic research, whether a checking system is available or not. However, most of the institutions are not in a position to provide access to deterrence tools except open-source software. Therefore, this is a serious concern because those who do not have access to an anti-plagiarism tool will go to check the similarity in their documents. This is a very serious concern, and the government has to take up the matter and provide central access to all government-funded academic higher educational institutions.

Role of COPE (Committee on Publication Ethics)

The main objective of CORE is to promote the integrity of research and its publications. Cope brings together all those involved in scholarly research and its publications to maintain transparency, strengthen the research network, educate, and debate the ethics of publications. The following are the core practices of COPE:

- Allegation of misconduct
- Authorship and contributorship
- Complaints and appeals
- Conflicts of interest
- Data and reproducibility

- Ethical oversight
- Intellectual property
- Journal management
- Peer review process
- Post-publication discussion^{6,7}

Conclusion

Under the above, the government of India and its regulatory bodies will have to make strict decisions, especially to implement research and publication ethics, which should be mandated for HEIs that are offering research activities. In 2002, the then government took a decision and directed that whoever submitted his or her thesis up to December 2002 would be exempted from UGC-NET. Consequently, more than 2 lakh theses were submitted without proper checking of the contents and similarity level. It is pertinent to mention here that if these theses undergo checking for similarity, most of them might be rejected in the name of similarity. This decision has spoiled the quality of research and ruined the system because most of the exempted candidates have been recruited in higher education, whereas UGC-NET-qualified candidates were available at that time too. Therefore, to maintain ethics in research, everyone has to take care and contribute to making budding scholars aware, and in the future, the government will have to avoid making such scandalous decisions.

Last but not least, research and publication ethics are very significant and play a vital role in the prestige of any academic institution. Universities are not meant to impart a simple education. Rather, these are meant to conduct better research for the upliftment of societies. For conducting better research, ethics need to be followed; otherwise, research has no meaning. Ethical-based research will get recognition in the international market and help to increase the h-index, g-index, i10, i20, and Altmetrics scores. Moreover, helps in getting a better ranking among the world's academic institutions.

Conflict of Interest: None

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