Research Ethics

CENTRE FOR RESEARCH & CONSULTANCY

HINDUSTAN
INSTITUTE OF TECHNOLOGY & SCIENCE
(DEEMED TO BE UNIVERSITY)

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1. PURPOSE

The purpose of Research ethics is to provide guidelines:

A. For the responsible conduct of research for the good of society

B. To educate and monitor scientists/ research scholars conducting research to ensure a high ethical standard

2. SCOPE

This policy applies to all researchers to be familiar with the basic ethical principles and have up-to-date knowledge aboutpolicies and procedures designed to ensure the safety of research subjects and to preventsloppy or irresponsible research.

3. CODE OF ETHICS

I. Shall not indulge in distortion of the Research process by fabrication of data, text hypothesis or methods from another researchers' manuscript form or publication.

II. Shall not resort to falsification ie. Making up results and recording or reporting them.

III. Shall not indulge in Plagiarism ie. Appropriation of another person's ideas, processes, results or words without giving appropriate credit.

IV. In case of scholars commit the act of plagiarism in the Thesis/Journal Publication, his/her Thesis/Degree shall be forfeited and his/her research registration shall be cancelled and also he/she shall be debarred to register for any other program in the University.

V. Articles that have been published already should not be either resubmitted under another title, or resubmitted with only minor changes to the text unless it is clearly stated that it is a resubmitted article.

VI.   Responsible authorship practices are an important part of research. Some of this assistance will require acknowledgement and some will require joint authorship.

4. AUTHORSHIP

Authorship is the process of deciding whose namesbelong on a research paper. In many cases, research evolvesfrom collaboration and assistance between experts andcolleagues. Some of this assistance will requireacknowledgement and some will require joint authorship.

Responsible authorship practices are an important part of research. Reporting andanalyzing results is the key to applying research findings to the real world. Despite itsvital role, authorship remains a murky and vague area for many scientists who frequentlyrun into difficulty when deciding which colleagues should be listed as authors or coauthors,and which colleagues should instead receive acknowledgement. Despite thechallenges, researchers should familiarize themselves with proper authorship practices inorder to protect their work and ideas while also preventing research fraud.

Each person listed as an author on an article should have significantly contributedto both the research and writing. In addition, all listed authors must be prepared to acceptfull responsibility for the content of the research article.

Authorship credit should be based only on
   1) Substantial contributions toconception and design, or acquisition of data, or analysis and
       Interpretation of data.
   2) Drafting the article or revising it critically forimportant intellectual content; and
   3) Final approval of the version to bepublished.

Acquisition of funding,the collection of data, or general supervision of the research group, by
They do not justify authorship.

5. Plagiarism

Plagiarism is the act of passing off somebody else's ideas, thoughts, pictures,theories, words, or stories as your own. If a researcher plagiarizes the work of others,they are bringing into question the integrity, ethics, and trustworthiness of the sum totalof his or her research.In addition, plagiarism is both an illegal act and punishable,considered to be on the same level as stealing from the author thatwhich he or she originally created

Plagiarism takes many forms. On one end of the spectrumare people who intentionally take a passage word-for-word, put it intheir own work, and do not properly credit the original author. Theother end consists of unintentional paraphrased andfragmented texts the author has pieced together from several works without properlyciting the original sources. Research manuscripts will be rejected bypublishers if they contain any form of plagiarism – including unintentional plagiarism.

A researcher preparing a written manuscript should cite the original source if he or she:
• "Quotes another person's actual words, either oral or written;
• Paraphrases another person's words, either oral or written;
• Uses another person's idea, opinion, or theory; or
• Borrows facts, statistics, or other illustrative material, unless the information is
  Common knowledge
- If a substantial amount of another person's graphics or text will be lifted from a web page, an author should ask permission to use the material from the original author or website host.

6. PEER REVIEW

Peer review is the process in which an author (or authors) submits a writtenmanuscript or article to a journal for publication and the journal editor distributes thearticle to experts working in the same, or similar, scientific discipline. The experts,otherwise called the reviewers and the editor then enter the peer review process. Theprocess involves the following:

- ➢ Reviewers and editors read and evaluate the article
- ➢ Reviewers submit their reviews back to the journal editor
- ➢ The journal editor takes all comments, including their own, andcommunicates this feedback to the original author (or authors)

The peer review process seldom proceeds in a straight line. The entire processmay involve several rounds of communication between the editor, the reviewers, and theoriginal author (or authors) before an article is fully ready for publication.

The two most important ethical concepts in the peer review process areconfidentiality and protection of intellectual property. Reviewers should not know theauthor (or authors) they are reviewing, and the author (or authors) should not be told thenames of the reviewers. Only by maintaining strict confidentiality guidelines can thepeer review process be truly open and beneficial. Likewise, no person involved in thepeer review process – either the editor, reviewers, or other journal staff – can publiclydisclose the information in the article or use the information in a submitted article forpersonal gain.

Peer reviewers, in addition to maintaining confidentiality, can be neitherconflicted nor political in their review. Conflicts may take the form of financial conflictswith the results, conflicts if the research is too similar to their own research endeavours,and conflicts due to personal relationships with the author (or authors).

7. CONFLICTS OF INTEREST

Conflicts of interest arise when a person's (or an organization's) obligations to aparticular research project conflict with their personal interests or obligations.A researcher should attempt to identify potential conflicts of interest in order toconfront those issues before they have a chance to do harm or damage. If conflicts ofinterest do exist, then the objectivity of the researcher and the integrity of the researchresults can be questioned by any person throughout the research review process.

Researchers should:
- ➢ Disclose to their institution any major or significant financial conflicts of interestthat might interfere with their ability to conduct a research project objectively
- ➢ Disclose any such financial conflicts of interest of their spouses or dependentchildren

8. DATA MANAGEMENT

Data management in respect to research ethics has three issues: 1) theethical and truthful collection of reliable data; 2) the ownership and responsibility ofcollected data; and, 3) retaining data and sharing access to collected data with colleaguesand the public.Each issue contributes to the integrity of research and can be easilyoverlooked by researchers. Oftentimes, researchers will downplay the importance of datamanagement because the details can be time consuming and they assume they can "figureit out" as they go along. It is not adequate research practice to assume issues involved indata collection will work themselves out on their own. Instead, a clear, responsible,ethically sound, and carefully outlined plan for data management is required at thebeginning of research to prevent all manners of conflicts and inappropriate researchmethods.

Ethical data collection refers to collecting data in a way that does not harm orinjure someone. Harm and injury could range from outright physical injury to harmfuldisclosure of unprotected confidential health information. In comparison, truthful datacollection refers to data that, once collected, are not manipulated or altered in any waythat might impact or falsely influence results.

Assigning and ensuring responsibility for collecting and maintaining data is oneof the most important ethical considerations when conducting a research project.
Responsibilities include the following important issues:

- o Oversight of the design of the method of data collection
- o Protecting research subjects from harm
- o Securing and storing data safely to preserve the integrity and privacy of data
- o Delegating work with data to others and responsibility over the work of others
- o Responsible use of data and truthful portrayal of data results

Protecting intellectual property as well as encouraging data sharing ishighly important in order to ensure valid and reliable research. In order to identify whatis and is not protected as "intellectual property," the concept must be clearly defined.

'Intellectual Property' means any invention, discovery, improvement,copyrightable work, integrated circuit mask work, trademark, tradesecret, and licensable know-how and related rights. Intellectual propertyincludes, but is not limited to, individual or multimedia works of art ormusic, *records of confidential information generated or maintained bythe University, data*, texts, instructional materials, tests, bibliographies,*research findings*, organisms, cells, viruses, *DNA sequences, otherbiological materials*, probes, crystallographic coordinates, plant lines,chemical compounds, and *theses*. Intellectual property may exist in awritten or electronic form, may be raw or derived, and may be in the form of text, multimedia, computer programs, spreadsheets, formatted fields inrecords or forms within files, databases, graphics, digital images, videoand audio recordings, live video or audio broadcasts, performances, twoor three-dimensional works of art, musical compositions, executions ofprocesses, film, film strips, slides, charts, transparencies, other visual/auralaids or CD-ROMS.

9. **RESEARCH MISCONDUCT**

Research misconduct is the process of identifying and reporting unethical orunsound research.

- Fabrication is making up data or results and recording or reportingthem.Falsification is manipulating research materials, equipment, orprocesses, or changing or omitting data or results such that theresearch is not accurately represented in the research record.
- Plagiarism is the appropriation of another person's ideas,processes, results, or words without giving appropriate credit.

Research misconduct does not include honest error or differencesof opinion. Research misconduct can be the result of criminal behaviour. Research misconduct can also be the result of mistaken, negligent, unintentional,lazy, or sloppy research practices.Any personwho knows that research is being conducted unethically should raise his or her concernsto the appropriate authorities, whether that person is involved in the research or not. Thefirst step in this instance may likely be a confidential conversation with the person incharge of research integrity at an institution. Once research misconduct has beenidentified, all parties involved in the research must take responsibility to resolve thesituation, including: the principal investigator, co-investigators, the institution hosting theresearch, the funding agency, and publishing journal editors, if

applicable. When someone is suspected of committing research misconduct, the properprocedure is to first launch an inquiry. If the inquiry reveals a potential researchmisconduct situation, the second step is to then conduct a full-scale investigation.Finally, the institution uses the information collected during the full-scale investigation tomake decisions concerning the presence of misconduct and its severity, and whatappropriate corrective action should be taken.