

ETHICAL AND LEGAL ISSUES IN RESEARCH

MANUELA MURA

Research and ethical issues

An ethical code of conduct is essential for researchers and professionals.

The set of principles:

- It is crucial to safeguard the rights of individuals participating in research. This includes protecting their privacy,
- Improving research validity.
- It is crucial to uphold scientific integrity while ensuring accuracy and honesty in research and reporting.

Research and ethical issues

It is crucial to adhere to research ethics as it can significantly impact the credibility of your study.

If your methods are morally questionable, it can be challenging for others to trust your data.

Ensuring that your research is conducted with integrity and respect towards your participants is essential.

Ethical considerations must be taken into account for every research project. It is important to evaluate and address them appropriately.

Common ethical issues in Research.

- Data Fabrication and Falsification.
- Redundant publication, plagiarism and Authorship
- Conflict of interest
- Environment impact

Jenn NC. Common Ethical Issues In Research And Publication. Malays Fam Physician. 2006 Aug 31;1(2-3):74-6. PMID: 27570592; PMCID: PMC4453117

Fabrication and Falsification of data

The research must record and report data accurately and honestly

Falsification is the deliberate act of omitting, deleting, or suppressing conflicting data and altering and modifying variance data.

- Altering measurements or experimental outcomes to make them conform to a desired result.
- Omitting data points that do not support the desired conclusion.
- Manipulating images to enhance or alter experimental results.

Fabrication and Falsification of data

Fabrication is creating or falsifying data, including making up experimental results, observations, or survey responses.

- A researcher claims to have conducted experiments and obtained results that were never performed.
- Creating fictional survey responses or patient records to support research findings.
- Manufacturing images or graphs to represent non-existent data.

Redundant publication

When an author reuses significant portions of their previously published work in a new publication without proper citation or acknowledgement, it is known as "duplicate publication" or "salami slicing."

Plagiarism

Plagiarism is the act of presenting someone else's work as your own, which includes copying text, figures, data, or any form of intellectual property without proper attribution or permission.

Authorship

Proper attribution of authorship is a crucial aspect of academic and scientific writing. It is used to determine who should receive credit as an author for a particular work, such as a research paper, article, or book. Accurate attribution is vital for transparency, accountability, and ensuring that individuals' contributions to a research project are recognized fairly.

Conflict of interest

Conflicts of interest (COI) arise when an individual or an organisation has competing interests or loyalties that may affect their capacity to act impartially or objectively in a given situation. Managing and disclosing COIs is crucial in many fields, such as business, academia, healthcare, and government, as it ensures that trust, transparency, and ethical behaviour are maintained.

Environment impact

Human research, projects, and policies can have varying effects on the environment, which can be either positive or negative. These effects can manifest in different ways, and it is crucial to assess and understand them when addressing ethical issues in research. This understanding allows for informed decision-making and the implementation of sustainable practices that protect the environment.

University code of ethics

You can access the university code of ethics [here](#).

The Research of Practice: [here](#)

Peer review Journal

- * Quality control
- * Credibility
- * Contribution to knowledge
- * Establish standards
- * Academic recognition
- * Sharing knowledge and promote open dialogue.

ChatGpt ethical issues in assessment

ChatGpt ethical issues in assessment

ChatGPT, launched in November 2022, is a highly sophisticated chatbot with a vast range of topics and remarkably human-like responses, setting it apart from others in the field.

Users interact with chatbots by typing in text-based prompts, which the chatbot responds with text-based messages.

Generative AI applications, such as ChatGPT, Bard, DALL-E, and Midjourney, use AI systems to create original media in response to user inputs.

How does ChatGPT works

ChatGPT is an advanced text generation technology powered by a vast dataset of billions of words from various sources such as books and web pages.

- it predicts the most probable words to follow in a given context, similar to a cutting-edge predictive text feature.
- It generates its responses by predicting the most natural replies to user prompts.
- The model uses a training method known as Reinforcement Learning from Human Feedback (RLHF).

Implications of ChatGpt

Here are some potential benefits and criticisms of AI-powered writing tools:

- They can enhance productivity across many professions by automating routine writing tasks like emails.
- They can enable individuals or smaller teams to take on more ambitious projects by accelerating processes like research and content generation.
- They can be interactive learning, research, and writing assistants in academic contexts.
- They can promote creativity by making tasks like coding and writing more accessible to those who may struggle to manage them alone.

Implications of ChatGpt

Critics argue that AI writing tools:

- May unintentionally spread misinformation due to their difficulty in admitting when they don't know something or deliberately generate fake news if asked by the user.
- Can enable academic dishonesty if students present AI-generated text as their work (although AI detectors can be used to identify when students have used these tools).
- Could disrupt many professions, resulting in job losses.
- They may reproduce biases in their training data, such as sexism.

Ethical Implications of ChatGpt

- Biased and inaccurate outputs
- Privacy violations
- Plagiarism and cheating
- Copyright infringement

Papers related to the use of chatbot in research.

- * <https://www.biorxiv.org/content/10.1101/2022.12.23.521610v1>
- * <https://www.jkaoms.org/journal/view.html?doi=10.5125/jkaoms.2023.49.3.105>