كلية علوم الحاسوب وتكنولوجيا المعلومات

College Computer Science and Information Technology

Guide to Research Ethics

Prepared by: Dr. Ali Karim Abdul Rahim

Teaching Assistant: Zahraa Fadhil Hussein

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1 Introduction

Scientific research is the cornerstone of societal development and progress, contributing to the production of knowledge and the development of solutions to diverse problems across various fields. However, this vital role of scientific research cannot be fully and reliably realized unless it is based on a robust system of ethical values and principles that govern the conduct of researchers and guide their practices.

From this perspective, the need arose for a guide to research ethics that serves as a structured reference, defining the standards that must be adhered to when conducting research activities. This guide aims to solidify the concepts of integrity, objectivity, and scientific honesty, and to ensure respect for the rights of individuals and society, thereby enhancing confidence in the outcomes of scientific research.

2 The purpose of the guide

This guide aims to achieve a set of fundamental objectives that ensure the quality and integrity of scientific research, most notably: .

- To instill the principles of research ethics among researchers and academic institutions.
- To promote integrity and transparency at all stages of the research process.
- To protect the rights of research participants and ensure their physical and psychological well-being.
- To reduce unethical practices such as plagiarism and data falsification.
- To raise the quality and credibility of scientific research both locally and internationally.

3 Directory field

- This guide applies to all research activities conducted within academic and research institutions, including:
- Faculty members and researchers in various disciplines.
- Graduate students (Master's and PhD) and undergraduate students during their research.
- Individual and group research projects.
- . Laboratory, applied, and theoretical research.

4 Article (1): Definitions

Research ethics refers to a set of values, principles, and qualities that researchers should possess throughout the various stages of their research.

These ethics include adherence to proper conduct that governs the researcher's work, ensuring respect for human values, preserving human dignity, and safeguarding the rights of individuals participating in the research.

Research ethics also encompasses the necessity of maintaining scientific integrity, acknowledging the contributions of others, avoiding plagiarism, and adhering to the established guidelines governing research.

These Ethics include:

- Scientific integrity
- Transparency
- Objectivity
- Respect for participants' rights
- Social responsibility

5 Article 2: Objectives of Scientific Research Ethics

The ethics of scientific research aim to achieve a set of fundamental goals that ensure the integrity and quality of the research process. Among the most prominent of these goals are:

- Protecting individuals and ensuring they are not harmed as a result of participating in scientific research.
- Enhancing confidence in the results of scientific research through adherence to ethical standards.
- Ensuring that research is conducted according to sound scientific and ethical principles at all stages.
- Complying with the laws, regulations, and guidelines that govern research work.
- Contributing to the development of scientific knowledge in a way that serves society and helps solve its problems.

6 Article 6 (3): Scientific Integrity

Scientific integrity is the cornerstone of any research work, as the researcher is committed to complete honesty and accuracy in all stages of the research, from data collection to the interpretation and publication of results.

- Fabricating or falsifying data in any way is prohibited, whether by adding false information or deleting data that could affect the results.
- Results must not be manipulated or altered to conform to preconceived hypotheses or the researcher's desires.
- Researchers are obligated to present the results as they are, including negative or unexpected findings, given their scientific value.
- All research procedures must be meticulously documented so that other researchers can trace the research steps and replicate the findings.

7 Article 7 (4): Scientific integrity (avoiding plagiarism)

Scientific integrity is one of the most important values that governs the relationship between the researcher and knowledge, as he must respect the intellectual property rights of others and not appropriate their ideas or work.

In Detail:

- All sources and references used must be accurately and scientifically documented according to established methods.
- Attributing the ideas or results of others to oneself, directly or indirectly, is prohibited.
- Quotations should be used correctly, clearly distinguishing between the researcher's own words and those of others.
- Republishing the same work or parts of it without attribution (self-plagiarism) must be avoided, as it misleads the scientific community.

8 Article 8 (5): Protection of research participants

Protecting participants is one of the most important ethical principles, as their safety and rights must be a top priority.

In Detail:

- Obtain informed consent from participants after explaining the research objectives, procedures, and risks.
- Ensure the confidentiality of personal information and prevent its use outside the scope of the research.
- Grant participants the full right to withdraw from the research at any time without repercussions.
- Avoid exploiting vulnerable groups such as children, the sick, or people with disabilities.

9 9. Article (6): Conflict of Interest

The researcher must disclose any potential conflict of interest that may affect the impartiality of the research.

In Detail:

- Disclosing research funding sources, especially if they have a vested interest in the results.
- Avoiding personal or financial relationships that could compromise the researcher's objectivity.
- Taking the necessary steps to ensure research independence.

10 Article 7: Responsible Scientific Publishing

The researcher adheres to the ethics of scientific publishing to ensure the credibility of the published knowledge.

In Detail:

- Do not submit the research to more than one journal simultaneously.
- Include only the actual contributors to the research.
- Avoid adding names of those who did not actually participate in the research.
- Correct any errors discovered after publication immediately and transparently.

11 Article 8: Academic Supervision

Supervisors have an ethical responsibility to guide researchers, especially students.

In Detail:

- Providing scientific and ethical guidance to students.
- Preventing the exploitation of novice researchers' efforts for personal gain.
- Ensuring a fair distribution of scientific effort among all participants.

12 Article 9: Dealing with Scientific Errors

Mistakes are part of scientific work, but how researchers deal with them determines their ethics.

In Detail:

- Admit errors as soon as they are discovered without hesitation.
- Correct or retract research if necessary.
- Do not hide or ignore flaws.

13 Article 13 (10): Ethics of Research Collaboration

Scientific cooperation is based on the principles of mutual respect and transparency.

- Clearly define the roles and responsibilities of each researcher from the outset.
- Share the results and benefits equitably.
- Respect the contributions of all parties and ensure no role is marginalized.

14 Article 14 (11): Use of modern technologies

Technology must be used in scientific research in a responsible and ethical manner:

- Avoid misusing or relying solely on artificial intelligence tools.
- Disclose the use of technical tools in research.
- Protect digital data from hacking or leaks.

15 Article 15 (12): Accountability and Penalties

Any violation of the ethics of scientific research warrants accountability.

In Detail:

- Research will be withdrawn or cancelled if a violation is proven.
- The researcher will be barred from publishing in scientific journals.
- Disciplinary or legal action may be taken depending on the nature of the violation.