TeamUp5G Workshop on Ethics and Inclusiveness for Telecommunications Engineers

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Round-table discussion about research ethics, commitment and responsibility

Context: Research ethics

Ethics of Science research

Is research true?

Concerns the relationship of the research results to the physical world.

Do the data and conclusions really correspond to reality?

If data are made up (fabricated) or fixed up (falsified), they are not true.

"Is it good science?"

Is research fair?

Concerns social relationships within the world of research. relationships among researchers (authorship and plagiarism); between researchers and human subjects (informed consent

relationships between researchers, their sponsoring institutions, funding agencies, and the government

Is research wise?

Concerns the relationship between the research agenda and the broader social and physical world.

Will the research improve the human condition, or damage it? Will it lead to a better world, or a worse one? We have finite time and money for pursuing research, and the wisdom of research programs is a valid question in research ethics.

Pimple, K. D. (2002). Six domains of research ethics. *Science and engineering ethics*, *8*(2), 191-205 https://doi.org/10.1007/s11948-002-0018-1.

Learning outcomes from the roundtable

The objective of this round table is to provide the participants with the presentation of the appropriate ethical conduct for science research, referring to the main ethical problems.

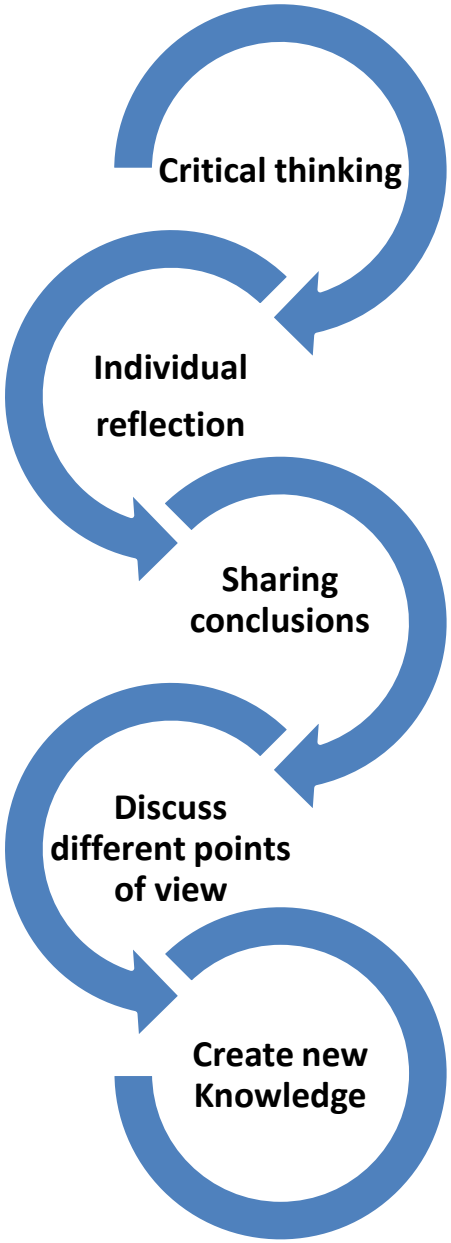
The main goals are:

1. Understand the importance of scientific research being guided by standards of demand and rigor, which include ethical principles and academic integrity;

2. Be able to critically analyse and reflect the main ethical challenges in science research;

3. Be able to critically analyse and reflect on the main forms of misconduct, either during the scientific research process or in a scientific publication;

LEARNING METHODOLOGY: COOPERATIVE LEARNING



1. Scientific integrity – The relationship between research and the truth.

Research ethics Problems Topics for discussion #1

- Why is an ethical problem?
- What are the consequences for science?
- According to your experience, is it common in research?

1.1. basic technical competence (including experimental design)

1.2. data manipulation

1.3. Inadequate statistical methods

1.4. falsification

1.5. fabrication

1.6. unintentional bias

Others?

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2. Collegiality – Relationships among researchers.

Research ethics Problems Topics for discussion #2

- Why is an ethical problem?
- What are the consequences for science?
- According to your experience, is it common in research?

2.1. authorship

2.2. data sharing and timely publishing

2.3. plagiarism

2.4. peer review

2.5. confidentiality

2.6. mentorship

2.7. Young researchers' commitment

Others?

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3. Social responsibility – The relationship between research and the common good.

Research ethics Problems Topics for discussion #3

- Why is an ethical problem?
- What are the consequences for science?
- According to your experience, is it common in research?

3.1. research priorities

3.2. fiscal responsibility

3.3. public service

3.4. public education

3.5. environmental impact

3.6. forbidden knowledge

3.7 Intellectual property issues

Others?

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