Data Science Ethics

Stage 2 , Semester 1
@ Department of Intelligent Medical Systems

Prepared by
Dr. Samir Badrawi

RESEARCH ETHICS AND PLAGIARISM

The majority of this course material is based on Coursera
https://www.coursera.org/learn/data-science-ethics
"H.V. Jagadish lectures", a Professor at the University of Michigan

RESEARCH ETHICS

Research, however novel its discoveries, is only of any value if it is carried out **honestly**. We cannot trust the results of a research project if we suspect that the researchers have not acted with **integrity**. Although it might be easy enough to take short cuts or even to **cheat**, it really is not worth it.

Not only will your research be discredited when you are found out, but you will suffer severe penalties and humiliation. It is a simple matter to follow the clear guidelines in citation that will prevent you being accused of passing off other people's work as your own – called **plagiarism**.

Working with human participants in your research always raises ethical issues about how you treat them. People should be treated with respect, which has many implications for how exactly how you deal with them before, during and after the research.

Even if you are not using human participants in your research, there is still the question of honesty in the way you collect, analyze and interpret data.

There are two aspects of ethical issues in research:

1. The individual values of the researcher relating to **honesty** and **frankness** and **personal integrity**.

2. The researcher's treatment of other people involved in the research, relating to **informed consent**, **confidentiality**, and **anonymity**.

Social research, and other forms of research which *study people and their relationships to each other and to the world*, need to be particularly sensitive about issues of ethical behaviour.

As this kind of research often touch the sensibilities and rights of other people, researchers must be aware of necessary ethical standards which should be observed to avoid any harm which might be caused by carrying out or publishing the results of the research project.

Necessary ethical standards in social research are embedded in the following titles:-

1. Research aims

2. Use of Language

3. Presentation pattern

4. Dealing with participants

PLAGIARISM

The issue of plagiarism is not new; however increased ease of access to electronic material via the web is always a concern among the academic community.

Although there is no direct evidence that student electronically cut and paste material into assignments, or purchase essays from „cheat sites‟, the potential for these kinds of problems exists. It is perhaps worth noting that good practice in dealing with plagiarism is also good practice in terms of learning, teaching and assessment more generally.

What is plagiarism?

A widely shared understanding is that :-

plagiarism occurs when someone tries to pass off someone else's work, thoughts or ideas as their own, whether deliberately or unintentionally, without appropriate acknowledgement.

It is important to recognise that plagiarism does not just apply to written work - whether essays, reports, dissertations or laboratory results - but can also apply to plans, projects, designs, music, presentations or other work presented for assessment.

Why is it a problem?

It's **cheating**! Or, to put it more formally, it is a form or **academic misconduct** or **dishonesty** - along with cheating, **collusion** and **fabrication**.

How do we avoid plagiarism?

Many students claim to understand plagiarism but then do not know how to avoid it.

Proper training, information skills, referencing and time management are amongst the areas which need to be addressed, ideally by the use of examples, case studies and exercises and within the context of their own subject.

Students should be provided with clear guidelines on what is acceptable and the institution's procedures and regulations for dealing with cheating.

It needs to be built into assessment briefs, course handbooks, on the student intranet, and linked to study skills materials and support.

In the wider context, information literacy needs to be inculcated at an early age or coping strategies (e.g. overreliance on Google) become deeply ingrained.