Research ethics applied to master thesis

Unethical conducts

1. Plagiarism
2. Unfair/unacknowledged assistance
3. Multiple submission/dishonest resuse of own material
4. Fabrication
5. Unauthorized collection and disclosure of sensitive or confidential material
6. Research with harmful effects
7. Incorrect co-authorship

Plagiarism - examples

- Text or images copied without quotes/references

- Rephrase a piece of text or slightly adapt a diagram so that it is no longer a direct copy

- Reuse of somebody else's code (even if it was freely available open source code), without acknowledging that such reuse took place

- publication of material for which somebody else holds the copyright, without having permission from the copyright holder

- shortcut an original reference by references to own work

Examples

Unfair/unacknowledged assistance:

- buying the report or parts thereof from a agency
- have a friend write some chapters or perform part of the underlying work (like coding)
- without acknowledging that the work was indeed done by somebody else

Multiple submission / dishonest reuse of own material

- submit a masters thesis material that you have already earned study points/other reward forms in another context
- reusing material that received already credit in a previous lecture

Frabrication - examples

- faking or altering empirical data (for instance from experiments) to make them fit the hypothesis

- making up the entire data set

- the experiment was for real, and most of the data set was kept as-is, but the student alters or omits some data to achieve statistically significant results

- citing non-existent sources

- pretending to have performed tests or other investigations that really did not take place

- faking or altering output traces from software prototypes or simulations that actually failed to run as expected, claiming that the software prototype works when it actually does not (and maybe presenting as run-time screenshots something that is really just static sketches),

Unauthorized collection and disclosure of sensitive or confidential material

- If the research involves a cooperation with companies and there are potential commercial interests involved

- If the research involves the usage of medical / patient data

- If the research involves a collection of personal information from or about people

- If accessed a yet unpublished scientific article under review for a journal or conference

Research with harmful effects

- If the end product is dangerous, or that procedures followed during the research may be harmful to people, property, or environment

- Example: performing research on computer viruses or other malware: take extreme care not to release such malware outside the experimental sandbox or make it available to potential computer criminals

- potential harm caused to or by ICT systems,

- development of software suspected tol be used for harmful purposes,

- release into a production context an ICT artefact that has not been sufficiently quality assured

Avoid incorrect co-authorships

- In the case that the thesis includes material present in published paper(s) co-authored

- attach one-page declaration for each such paper, containing the bibliographic information of the paper, a specification of each person's contribution to the research and writing of the paper, and the signature of all authors