Honesty and ethics of science

- Science is based on trust
  - Researchers are honest
  - Research is ethical
- Honesty
  - Ideas, results, and conclusions presented are new
  - Assumptions are not presented as facts
  - Truth is not misrepresented
- Violation of these norms of behaviour is a serious matter!

Reviewing / Refering

- Criticising and analysing others' work
  - Research article
  - Theses, reports, seminar work
- Important part of the scientific process
- Should be objective and fair
- Referee statement / reviewer statement
  - Analysis of the contents of the article
  - Not evaluation of the author or his/her working place

Reviewing / Refering (2)

- Conflicts of interest in referring
  - Personal or employment relationship
  - Competition for an appointment
  - Conflicting ideas/opinions
  - Too similar research interests/ideas
- A suspicion of non-objectiveness
  => refuse the referee task

Reviewing / Refering (3)

- Confidentiality
  - As referee / reviewer you are not allow to publish the articles or parts of them
  - Not even allowed to show to others, if not an assisting referee
- Totally out of line
  - Suggest rejection, and then
  - Use the ideas/results as a basis for referee's own work
The most obvious form of unethical behaviour in science is the attempt to get honour of work that somebody else has done. Using existing material without citing to the original work, or citing it inadequately is also unethical. Intentional and unintentional plagiarism is often ignored. Disregard of the norms of ethical behaviour and ignorance of those norms are also issues.

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Forms of plagiarism include use of others’ ideas or results without acknowledgements, direct copying of material without citing the source, citing the source but not indicating the exact quotation, and using material with inappropriate or inadequate citations.

Forms of plagiarism (2) include copying the structure of a source, using pictures, copying of a unique picture (by scanning or redrawing it) always plagiarism, if modified from its original form (even translated), the source must be indicated, and self-plagiarism.

How not to plagiarize (source: University of Toronto)

The purpose of any paper is to show your own thinking, not to create a patchwork of borrowed ideas. Citations are used to demonstrate that you know what is going on in your field of study. In academic papers, you need to keep mentioning authors and pages and dates to show how your ideas are related to those of the experts. As you read the text, summarize useful points in your own words. Do not copy to draft – that causes trouble!

Self-plagiarism includes copying/reusing one’s own text (previous work). Exception: an extended/completed version of a conference/workshop paper that is published in a journal. Multiple articles based on same results. Publishing improper unless full cross-referenced. Simultaneous submissions to different publication forums must be disclosed.
Self-plagiarism (2)

- Against good ethics
  - Even the description of the background of the work should always be rewritten
  - A member of a research group cannot use texts of the other group members
- Question of copyright
  - Publication forum has usually the rights for the presentation
  - Author has the rights for his/her ideas!

Authorship

- Each author of an article should have some contribution to the contents of it
  - Implementing an algorithm not enough
  - Giving feedback not enough
    - mentioned in Acknowledgements
- Preferred: contribution to ideas, experimentation and analysis
- Authors must give their permission for authorship
- Being a member of a research group does not automatically give the authorship

Authorship (2)

- Postgraduate studies
  - Student and supervisor together
  - Supervisor should not publish alone results that the student has obtained
  - Student should not publish the results without consulting the supervisor
- Order of the authors
  - Alphabetical order by last names
  - The author with the biggest contribution first

Publishing on web pages

- Articles published only in authors' or research groups' web pages
  - Intention to publish as a conference, workshop or journal article
  - Can be considered by a publication forum as published
  - Usually not refereed
- Articles already published in a conference, workshop or journal
  - Not always allowed
  - When allowed, must typically include the copyright notice of the publisher

Detecting plagiarism

- Usually it is easy to tell when someone has copied text
- Language changes
  - Language style varies
  - Fluency of text varies
  - Terminology changes
    - especially if copied from different places and sources
  - Words not a normal part of the writer's style and vocabulary

Detecting plagiarism (2)

- Digital copies of articles make copying easy
  - BUT they can be easily found also by the referees and teachers!
- Our university and department do not tolerate plagiarism, i.e. copying the work of others
- Technical tools are used for detecting plagiarism and checking the originality of submitted reports, seminar works and theses!
Example of detection tools: Turnitin

Cut and paste plagiarism

What about this one? Plagiarism or not?

Plagiarism detection at University of Helsinki

Consequences of plagiarism in general

- Article is not published
- Lost of reputation
- Lost of a job
- Even jail
- ...
Consequences of plagiarism (2) for students

- Thesis/report/seminar work is not accepted
- Course is failed
- Course must be retaken
- ...
- Personal meeting with Head of the Department, Dean of the Faculty and/or Rector of the University
- Student will lose the study right, i.e., is thrown out of the university

Avoiding plagiarism

- Take model of others work (outlining, writing, citing), but don’t copy them
- Cite your sources
- Make it clear what is the origin of your text
  - Distinguish what you state and what the others have stated
  - Paraphrase the ideas of others

Avoiding plagiarism (2)

- Show direct quotations with quotation marks (even direct translations) and proper citations
- Make your own pictures, tables, etc.
- Give in the list of references only those articles that you have read and cited

Avoiding plagiarism (3)

- Writing the ideas of some other authors in your own words
  - Without changing the original meaning
  - Paragraph structure not the same
  - Sentence structure not the same
  - Words not too similar to the original
  - Requires that you understand what the others have stated
  - Paraphrasing can also help to understand a difficult text

Paraphrasing

- Basic process
  - Read the source and understand it
  - Write/paraphrase the contents with your own words
  - Check your version against the original
  - Revise if necessary
  - Different approaches of paraphrasing (writing)
    - Read the source, put it a side, and do not look at it, while writing
    - Read the source and take notes, have a break, use the notes while writing
    - Paraphrase while looking at the source
- Key steps of the paraphrasing process
  - Changing the structure
    - Paragraph structure
    - Sentence structure
    - Keep just the main and most relevant ideas
  - Changing the words
    - Keep specialised words and terminology, i.e., shared language
    - Find alternative words and expressions for other words and phrases
    - Thesauruses, dictionaries
Paraphrasing is an iterative process
- Start by changing the structure, not the words
- Change the words
- Make further changes to the structure
- ...
- Several iterations may be needed!

Occurs when
- the results obtained improperly described and/or overstated
- the value of previous work diminished

Description of the results
- Accurate, precise, correct, truthful
- All restrictions explained
- Both negative and positive results reported
- Detailed enough so that experiments can be repeated

Unintentional mistake is not misrepresentation

The most serious form: totally incorrect statement(s)

Other forms:
- Underestimating previous work
- Emphasising own results (even preliminary or somehow restricted)
- Omitting unsuccessful experiments and their results
- Omitting the change history of web documents

Online guides, for example,
- Writer’s Handbook of University of Wisconsin-Madison (USA)
- Online writing lab of University of Purdue (USA)
- Writing skills guide of the Royal Melbourne Institute of Technology (Australia)
- Justin Zobel’s page with links to Technical writing and research ethics

Books

Submission address for me:
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Time management

- How to balance studies, sleeping and hobbies/family life / free time?
- any ideas?

- Timetable for studies
- Study plan: which courses and when?

Decisions, skills, tools
- CRITICISING process: motivation, plans, followup
- Selection and prioritisation of tasks based on values
- Clear subgoals in terms of contents, quality, schedules
- Persistence, courage
- Long term resourcing vs instant pressure
- Control of own and shared work, e.g. reporting, feedback, splitting work
- Removal of disturbance
- Materials, tools, peaceful work environment, notes available for no-delay access

Self confidence
- Managmen of your own work
- Process skills, leadership, subordination skills, export role
- Quality of work
- Keeping deadlines
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Threats, hinders
- Stress, anxiety, exhaustion
- Feeling of insufficiency
- Avoiding larger tasks
- Procrastination
- Unrealistic expectations
- Difficulty estimating quality of work
- Failure to resource
- Difficulty completing task
- Expectations on advisor's push