582519 Scientific Writing for MSc in Computer Science:

Ethics of writing

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Tiina Niklander

Last week's task: How did it go?

-- fill comments here --

List of references and its structure

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
  - Analysis of the contents of the article
  - Not evaluation of the author or his/her working place

Reviewing / Refering (2)

- Conflicts of interest in refering
  - 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 you are not allow to publish the articles or parts of them
  - Not even allowed to show others, if not an assisting referee
- Totally out of line
  - Suggest rejection
  - Use the ideas/results as a basis for referee's own work

Plagiarism

- The most obvious form of unethical behaviour in science
- Attempt to get honour of work that somebody else has done
- Using existing material without citing to the original work, or citing it inadequately
- Intentional and unintentional plagiarism
  - disregard of the norms of ethical behaviour
  - ignorance of those norms

Plagiarised material

- Plagiarised material can be
  - ideas
  - results
  - text, pictures, figures, tables
  - whole articles or part of them
- Sources of the plagiarised material
  - published articles
  - web pages
  - newsgroup articles
  - e-mail message, ...

Forms of plagiarism

- 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
- Using material with inappropriate or inadequate citations
  - What part of the text the citation covers?

Forms of plagiarism (2)

- Copying the structure of a source
- Using pictures
  - Copying of a unique picture (by scanning or re-drawing it) always plagiarism
  - If modified from its original form (even translated), the source must be indicated
- Self-plagiarism

Self-plagiarism

- Copying/reusing one's own text (previous work)
  - Exception: an extended/complete 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!

Consequences of plagiarism

- Article is not published
- Lost of reputation
- Lost of a job
- Even jail
- ...

Consequences of plagiarism (2)

- Thesis/report/seminar work is not accepted
- Course is failed
- Course must be retaken
- ...
- 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

Paraphrasing

- 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 (2)

- 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

Paraphrasing (3)

- 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 (4)

- 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!

Misrepresentation

- 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

Misrepresentation (2)

- 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

Sources

- Books
  - Zobel, J., Writing for Computer Science: The art of effective communication. Springer-Verlag, Singapore, 1997.
  - Lester, J.D., Writing Research Papers: A complete guide. 7th edition. HarperCollins College Publishers, New York, 1993.
  - Barrass, R., Scientists Must Write: A guide to better writing for scientists, engineers and students. Chapman & Hall, London, 1995.

Sources (2)

- 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