

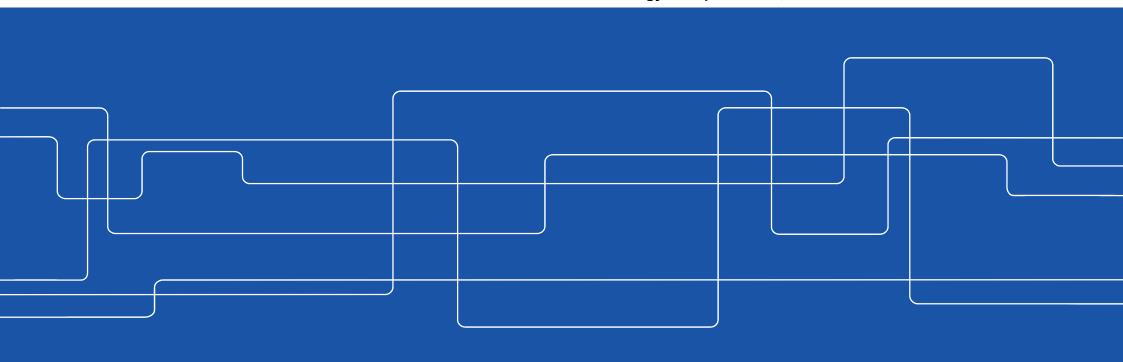
# **Avoiding Being Accused of Plagiarism**

**Professor Carl-Mikael Zetterling** 

www.kth.se/profile/bellman/bellman@kth.se

KTH Royal Institute of Technology
School of Information and Communication Technology
September 5, 2016







## **Questions on Plagiarism**

- Why can I be accused of plagiarism
- What is plagiarism and which rules apply?
- How is plagiarism detected and punished?
- Case study: Master's thesis
- How to avoid plagiarism?
- How and why use references when writing?
- Where to learn more?



## Why can I be accused of plagiarism

All homework can be routinely checked with text matching tools like Turnitin or Urkund.

Rector's decision: All Master and Bachelor theses must be checked by the examiner for plagiarism, before grading.

Addition to Policy on advance reviewing of doctoral theses/licentiate theses:

The main supervisor must certify that a check for plagiarism has been carried out and that any deficiencies are corrected before the doctoral or licentiate thesis is submitted to the internal quality review.



## Plagiarism, definition

From Wikipedia, the free encyclopedia:

Plagiarism is the "wrongful appropriation" and "stealing and publication" of another author's "language, thoughts, ideas, or expressions" and the representation of them as one's own original work.

https://en.wikipedia.org/wiki/Plagiarism

Plagiarism is not the same as copyright infringement.



## Plagiarism is defined as "submitting someone else's work as one's own"

#### Examples (for details see KTH plagiarism policy [1]):

- Copying of text, problem solutions, computer programs, drawings/diagrams and pictures without citing the copied material and without specifying the source.
- Copying other students' work.
- Using ideas, data or other material without specifying the source.
- Summarising or rewriting a text without the writer essentially changing the original.
- Too close cooperation with other students.
- Translating a piece of work.

<sup>1. &</sup>lt;a href="https://intra.kth.se/en/styrning/regelverk/utbildning-overgripande-1.660834">https://intra.kth.se/en/styrning/regelverk/utbildning-overgripande-1.660834</a>
<a href="https://intra.kth.se/polopoly-fs/1.661122!/Policy%20for%20handling%20plagiarism%20in%20KTH%20education.pdf">https://intra.kth.se/polopoly-fs/1.661122!/Policy%20for%20handling%20plagiarism%20in%20KTH%20education.pdf</a>



# The KTH plagiarism policy is based on the Higher Education Ordinance

The Higher Education Ordinance (SFS 1993:100) does not specifically mention plagiarism, but states (Chapter 10 Section 1): Disciplinary measures may be taken against students who 1. by prohibited aids or other means **attempt to deceive** during

examinations or when academic work is otherwise assessed



#### How is plagiarism detected?

Examples of plagiarism detection tools (text matching tools):

http://www.turnitin.com/

http://www.urkund.com/en/



Nowadays, the electronic product is becoming more and more important in our lives at the same time the paster also brings many problems. We need to solve the waste problem immediately. Over 20 million personal computers became outdated in 1998 and only 13% were recycled with 51 million kgs of material recovered including steel, plastically and glass. Many municipalities face the problem of what to do with retired electronic recycling the raw materials from end-of-life preserves natural resources also reduces energy used in new product manufacturing.

Preventing waste in the first place is usually preferable to any waste management option, including recycling. Donating electronics for reuse extends the lives valuable products and keeps them out of the waste management system for a longer time. As a household or business, you may be able to take advantage of tax incentives for computer equipment donations. The most appropriate donation organization to handle a computer can vary from area to area.

A rising number of municipalities are presenting computer and electronics collections as part of household risky waste collections. In addition, private and public organizations have emerged that admit computers and other electronics for recycling. Depending on where you live, the best alternative may be a county recycling drop-off centre, TV repair shop, charitable organization, electronics recycling company, or even your local electronics retailer.

Some companies have been penalized for practicing double standards on their regional and national policies for recycling. For example, while Sony support Individual Producer Responsibility elsewhere in the world, in the United States they are part of a coalition opposing producer responsibility laws and calling for consumers, instead of producers, to pay for the recycling of e-waste



## What is not found by text matching?

- Some copyrighted material not online, even though we have access to it through KTHB subscriptions, including journals and text books
- Translations
- Original texts written by someone else
- Some internet sources

#### What percentage / color signifies plagiarism?

See case study!



## Access to text-matching (plagiarism) tools at KTH

The teaching staff uses Turnitin or Urkund to help find plagiarism, but these services have licenses that does not permit students to have access.

You can however ask your thesis supervisor to run a plagiarism check and discuss the results with you.

Google "free plagiarism checkers" and you can find something for your own use. Please note that we have not tested any of these, so use them at own risk.



# Revocation of 4 German Politicians' Ph.Ds For Plagiarism









- Karl-Theodor zu Guttenberg, previously German Defense Minister
- Silvana Koch-Mehrin, previously vice president of the European Parliament
- Jorgo Chatzimarkakis
- Annette Schavan, German Minister of Education



A Guttenberg Keyboard, photo from eBay listing

http://www.ithenticate.com/plagiarism-detection-blog/bid/60500/Revocation-of-3-German-Politicians-Ph-Ds-For-Plagiarism-3-Reactions

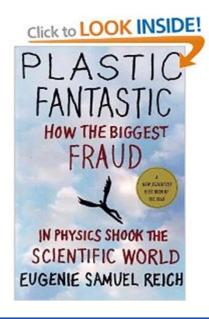


#### Jan Hendrik Schön



German physicist Jan Hendrik Schön (born 1970 in Verden) who briefly rose to prominence after a series of apparent breakthroughs with semiconductors that were later discovered to be fraudulent

http://en.wikipedia.org/wiki/Sch%C3%B6n\_scandal



Plastic Fantastic by Eugenie Samuel Reich



#### What can be the result?

#### Warning or Suspension

In cases involving suspension, schools (and Ladok) are informed and are responsible for the enforcement of the decision to suspend the student.

During suspension, students may not:

- participate in any teaching, laboratory work, or any other work at KTH
- visit KTH teaching facilities
- sit any examinations
- participate in any study trips



A master student is close to presentation and submits his/her thesis draft to the examiner.

According to the KTH rules, "The degree project report will be checked for plagiarism."

The examiner decides to use Turnitin for text matching for the plagiarism check.

The result is a 42% total match.

https://intra.kth.se/en/styrning/regelverk/utbildning-pa-grund-och-avancerad-niva-1.660818 https://intra.kth.se/polopoly\_fs/1.661631!/Comprehensive%20guidelines%20for%20degree%20project%20courses%2C%20common%20goals%20and%20assessment%20criteria%20%28applies%20from%2001.07.2015%29.pdf

(Last change 2015-07-01).



- 1. A paragraph in the introduction has been copied without changes from a text book. At the end of the paragraph there is a reference marker [1].
- 2. In the method description a section has several fragments of sentences from the same source (a journal paper), but it is mixed with unmarked words. There is no reference marker.
- 3. There are two full sentences from Wikipedia, copied without any reference (an explanation of technical terminology). Also 40 other websites have this identical sentence.
- 4. The title of the thesis is identical to a master thesis title from another university.
- 5. Each reference item in the bibliography, from various sources.



(C) 2011-16 CARL-MIKAEL ZETTERLING

When the examiner looks more carefully at the thesis, three things that Turnitin cannot find is noticed:

- A. One figure is identical to one in an IEEE Journal paper, and without any reference.
- B. One equation is identical to one in a textbook, and without any reference.
- C. A section with simulated data shows surprisingly close agreement with the theory developed by the student, although the examiner remembers discussing the lack of convergence in this simulation.



Classify each of these in terms of

- Plagiarism claiming others work as own
- Copyright infringement someone else owns the rights
- Academic fraud data falsification

Question: Should the examiner report the student to the disciplinary board of KTH?

Work in groups of two or three and discuss.

#### Classify each of these in terms of

- Plagiarism claiming others work as own
- Copyright infringement someone else owns the rights
- Academic fraud data falsification

Question: Should the examiner report the student to the disciplinary board of KTH?

- 1. A paragraph in the introduction has been copied without changes from a text book. At the end of the paragraph there is a reference marker [1].
- 2. In the method description a section has several fragments of sentences from the same source (a journal paper), but it is mixed with unmarked words. There is no reference marker.
- 3. There are two full sentences from Wikipedia, copied without any reference (an explanation of technical terminology). Also 40 other websites have this identical sentence.
- 4. The title of the thesis is identical to a master thesis title from another university.
- 5. Each reference item in the bibliography, from various sources.
- A. One figure is identical to one in an IEEE Journal paper, and without any reference.
- B. One equation is identical to one in a textbook, and without any reference.
- C. A section with simulated data shows surprisingly close agreement with the theory developed by the student, although the examiner remembers discussing the lack of convergence in this simulation.



## How not to be accused of copy-paste by mistake

- Keep a separate file for copy-paste notes (copynpaste\_methods.doc)
- Keep track of references (together with copied material)
- Use "your own words" (put references aside while writing)
- Warning: common in the background part (maybe it can be excluded or briefly summarized?)
- Also figures and equations should be referenced (better safe than sorry)



## Referencing example

An important decision to make in the simulations is what type of relationship to use for the average electron velocity as a function of electric field. For GaAs the equilibrium curve of figure 7 is well known. However, the electrons are not in equilibrium with the lattice during much of their transit time, since large gradients exist in the electric field due to the shape of the base region. Usually a piecewise linear velocity-field characteristic is used instead. The average velocity can be found with Monte Carlo simulations. [8]

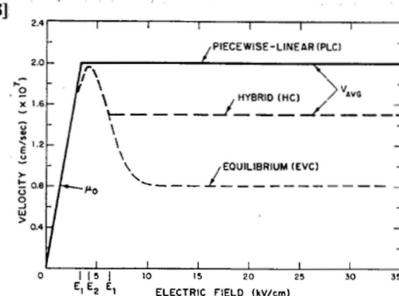


Figure 7: Velocity-field characteristics for GaAs [8] Reproduced with permission from IEEE.

NOTE: To avoid copyright infringement you also need the publisher's permission!

[8] C. O. Bozler, G. D. Alley, "Fabrication and numerical simulation of the permeable base transistor", IEEE Trans. Electron Devices, vol ED-27, no 6, pp 1128-1141, June 1980.



## Referencing example 2

due to the shape of the base region. characteristic is used instead. The average simulations. [8]

Citation in text [8] (should be before ".") and complete reference at end of essay

#### References

[8] C. O. Bozler, G. D. Alley, "Fabrication and numerical simulation of the permeable base transistor", IEEE Trans. Electron Devices, vol ED-27, no 6, pp 1128-1141, June 1980.



## Reference styles

- Numbered, start at 1, citations [8] or 8.
   References in numerical order at end.
- Author date, citations such as (Zetterling 2005).
   References in alphabetical order by first author at end.

You can (frequently) choose a style, but be consistent



#### **Complete Reference**

- Enough information to find reference without doing new information search, examples:
  - Author, year, article title, journal, volume, pages
  - Author, year, title, publisher, ISBN
  - Author, year, title, weblink, access date
- Title is optional for articles but not books.
- Access date for web references.



#### **Citations**

If you want to include a passage of text verbatim (without changes) you need to indicate clearly that it is not your words but someone else's:

Citation marks!

Reference marker!

1. Hamlet, Prince of Denmark. Philip Edwards, ed., updated edition 2003. (New Cambridge Shakespeare)



#### How much should be referenced?

#### References

- [1] Bible Exodus 32 verses 19-20
- [2] Newton S I and Chittenden N W 1848 Newton's Principia: The Mathematical Principles of Natural Philosophy D. Adee
- [3] Wood R W 1902 On a remarkable case of uneven distribution of light in a diffraction grating spectrum *Phil. Mag. Ser.* 6 4 396–402
- [4] Ritchie R H 1957 Plasma losses by fast electrons in thin films Phys. Rev. 106 874
- [5] Powell C J and Swan J B 1959 Origin of the characteristic electron energy losses in aluminum *Phys. Rev.* 115 869
- [6] Ritchie R H, Arakawa E T, Cowan J J and Hamm R N 1968 Surface-plasmon resonance effect in grating diffraction Phys. Rev. Lett. 21 1530
- [7] Kretschmann E and Raether H 1968 Radiative decay of non radiative surface plasmons excited by light (Surface plasma waves excitation by light and decay into photons applied to nonradiative modes) Z. Naturf. a 23 2135
- [8] Otto A 1968 Excitation of nonradiative surface plasma waves in silver by the method of frustrated total reflection Z. Phys. A 216 398–410
- [9] Lorenz L 1898 Lysbevaegelsen i og uden for en hal plane lysbôlger belyst kulge Vidensk. Selk. Skr. 6 1–62

http://dx.doi.org/10.1088/0953-8984/24/7/073202



#### Three reasons to use references

- 1. To show the **examiner/grading committee/reviewer** that you "have done your homework"
- 2. To help a **reader** of your work find further details
- 3. To help **yourself** find important facts later



#### Three places to use references

- 1. Not in Abstract [style]
- 2. In Introduction/Background [previous work]
- 3. In Method/Approach [previous work]
- 4. Not in Results [original ideas]
- 5. In Discussion to compare to other source [original ideas]
- 6. Usually **not** in Conclusion [style]



#### Where to learn more:





Vetenskapsrådet

GOD FORSKNINGSSED

VETENSKAPSARENS RAPPORTSERE 1-2001

Guiding students away from plagiarism (free e-book) (Jude Carroll and Carl-Mikael Zetterling, 2009)

http://urn.kb.se/resolve?urn=urn:nbn:se:kth:diva-83704

Good Research Practice (free e-book from VR)

https://publikationer.vr.se/en/product/good-research-practice/ https://publikationer.vr.se/produkt/god-forskningssed/

Turnitin and Urkund, Tutorials and White Papers

<a href="http://www.turnitin.com/">http://www.turnitin.com/</a> <a href="http://www.urkund.com/en/">http://www.urkund.com/en/</a>

Refero - an Anti-plagiarism Tutorial

http://refero.lnu.se/english/ http://refero.lnu.se/

**Cornell University Tutorial** 

http://plagiarism.arts.cornell.edu/tutorial/index.cfm

LearnHigher resource list:

http://www.learnhigher.ac.uk/category/learning-at-university/



## Acknowledgement



Jude Carroll, formerly of Oxford Brookes University, and guest researcher at KTH 2008/09, is acknowledged for leadership and inspiration in preventing plagiarism.

Example text used in this lecture, and some of the slides, are used with her permission.



## **Summary: Avoiding Plagiarism**

Why can I be accused of plagiarism

⇒ See KTH plagiarism policy

What is plagiarism and which rules apply?

⇒ Importance of "intent to deceive"

How is plagiarism detected and punished?

⇒ Good reader or TURNITIN

How to avoid plagiarism?

⇒ Use "your own words" and properly use references

How and why use references when writing?

⇒ See examples

Where to learn more?

⇒ See Bibliography of *Guiding students away from plagiarism*