

How tackle cheating and plagiarism in engineering educations?

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Abstract

Contrary to what many Swedish university teachers seem to think, they have no obligation to report every case of student plagiarism to the disciplinary board. The reason for this misconception is likely due to a failure to distinguish between deceitful behavior and plagiarism: How to write scientific texts, technical reports and the like is not a trivial task and we that teach future engineers need to realize that we have an obligation to give our students opportunities to train these skills, rather than assume that they already know the rules of the game. We need to start distinguish between at least two different writing skills: The skill of independent writing, i.e. writing with one's own words, and the skill of referencing. We also need to make sure that our students understand that there are several reasons why referencing is important, not just giving due credit.

It should be carefully noted that we *are* forced by law to report every *suspicion of deceitful behavior* when student work is being assessed. However, I argue that anyone that claims that every case of student plagiarism is a case of deceitful behavior simply has not understood what academic writing and student learning is all about.

Introduction

Engineering educations focus not only on different subjects but also on what is sometimes called generic graduate attributes such as writing, oral presentation and problem solving. The emphasis on solving problems in engineering educations might possibly be interpreted by the engineering student to imply that the teacher is interested more in a polished product (report, presentation, computer programme, etc.) than the somewhat more elusive concepts of demonstrated learning and demonstrated ability. Be that how it may, cheating and plagiarism is an issue that has been given far too little attention in Swedish engineering educations.

A typical academic definition of plagiarism is (Carroll 2007):

“Plagiarism is defined as submitting someone else's work as your own”

Such a definition might be interpreted as if “not giving due credit” is what plagiarism is all about. An alternative interpretation of plagiarism is that of Biggs (2003) who through his SOLO classification of plagiarism looks upon plagiarism as the opposite of originality. Thus, different interpretations of the term plagiarism does exist. Furthermore, given the multitude of different assignment we give our students it is only natural that plagiarism and cheating comes in many different forms and shapes.

Due to the nature of engineering educations, text comparison tools such as Urkund, Turnitin and Genuinetext, are often of limited value. In e.g. computer programming these tools simply are not adequate and for a typical lab report their value is rather questionable. In written assignments, however, they can be helpful e.g. in screening student reports for questionable behaviour, but should such findings be sent without further thought to a disciplinary board? Whose responsibility is it to decide what proves a case and what does not?

The aim with this session is to share some ideas of how we can improve our engineering educations by making clear for ourselves, as well as our students, what plagiarism in an engineering context is all about, why we need to do something about it and what we can do.

Is plagiarism cheating?

Many of the Swedish university teachers I've discussed plagiarism with during the last 10-15 years have claimed that the Swedish Higher Education Ordinance (SFS 1993) states that each case of student plagiarism *has* to be reported. It wasn't until I attended a conference on plagiarism in Stockholm in 2007 that it dawned on me that the term plagiarism is not even mentioned in the ordinance. This misconception of mine might seem somewhat surprising, especially since I had read that passage in the ordinance many times prior to the Stockholm meeting. However, every time I read "deceit" in the ordinance my mind immediately translated that to "plagiarism" and it seems that I was not alone in doing that automatic translation.

So what's the difference between plagiarism and cheating? Since 2003, when I first experienced a case of student plagiarism, I have talked with many hundred students and a few hundred teachers about their views on cheating, plagiarism, referencing and what it is to write with your own words. From these discussions I have come to view good academic writing in engineering educations as a combination of

- Language skills, especially the ability to
 - formulate oneself independently
 - change style depending on large scale context, e.g. memo, technical report, scientific article, etc.
 - change style depending on small scale context, e.g. writing a method section in a style that's slightly different from that of the introduction
- Referencing skills, i.e. use references in a way that
 - gives credit to those who deserve credit
 - helps rather than hinders the reader
 - demonstrate familiarity with the field
 - strengthens the argument
 - makes it difficult to criticize the text without criticizing the references
- A touch of originality

and my guess is that you when reading this would want to add other important aspects that I haven't mentioned. A weakness in any of the points listed above might result in the student writing a text that results in an accusation of plagiarism.

Today, I therefore strongly argue that the task to differentiate between obvious deficiencies in independent writing and suspected attempts to cheat is an integral part of our pedagogic responsibility (Alveteg and Josefsson 2008). We as teachers are responsible for the *quality* of our engineering educations while our disciplinary boards are responsible for establishing whether the student *intended to cheat* or not.

For our disciplinary boards to be able to function well, we as teachers need to engage in discussions with students as well as colleagues on what plagiarism, cheating and academic conduct really is. Since individual students often take courses at more than one department or even more than one faculty or university, it seems likely that organisational support is a prerequisite for advanced discussions between teachers and students on these issues (Alveteg and Josefsson 2008). One possibility is to do what Oxford Brookes University back in year 2000 (Carroll 2005) and introduce Academic Conduct Officers (see Figure 1).

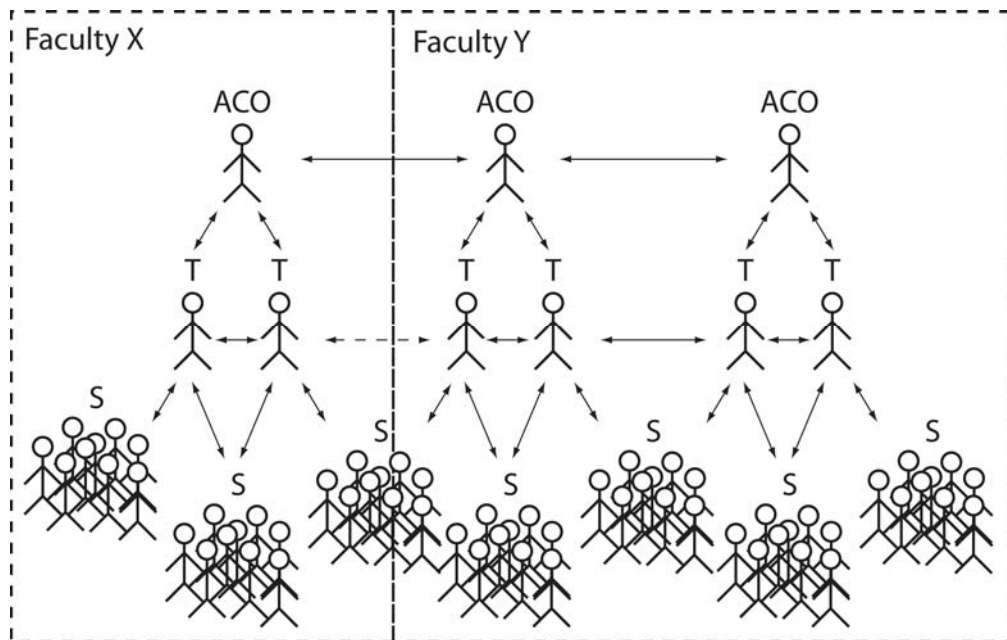


Figure 1. One way to organise support for discussions on plagiarism is to appoint Academic Conduct Officers (ACO) to which teachers (T) can turn for guidance and support e.g. for how they should communicate these issues with their students (S). Figure reprinted from Alveteg and Josefsson (2008).

Some teachers might think that fighting student plagiarism should not be a part of their job description, that their task is to teach rather than hunt offenders of the rules. But every case of plagiarism is a case of learning being avoided and who can honestly claim that encouraging learning isn't part of the job description of a university teacher?

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