Avoiding Plagiarism and Collusion

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Abstract **- The introduction of technology and Internet into education has been one of the most important educational changes of the past century. Nowadays, every university student is an Internet user and the Internet sources help him to cope with the study requirements. But the university assessment strategies often reflect the characteristics of the classical resources to a greater extent than the capabilities of electronic media. Given reports of plagiarism and the ease with which the students can cut and paste content from online sources, the applicability of traditional assessment strategies need to be examined in light of these electronic (technological) advances. In our paper, we discuss the terminology used for electronic cheating, describe results of our survey and offer a list of issues for further research.**

Index Terms – collusion, electronic cheating, plagiarism, students

INTRODUCTION

Technical universities in the Czech Republic have recently come to a conclusion they have to expect their students to demonstrate high standards in academic integrity, respect for others' work through proper references and acknowledgement. Nevertheless no specialized software has been introduced to cut back the student plagiarism so far.
In our paper we would like to explore the basic terms connected with academic cheating and discuss data from a survey conducted in Masaryk Institute of Advanced Studies at the Technical University in Prague.

DISHONEST BEHAVIOUR CHARACTERISTICS

Academic cheating is the theft of ideas and other forms of intellectual property. There are different forms of academic cheating, electronic and non-electronic, which are defined by 3 characteristics:
- the student breaks given academic rules
- he gets unjustified advantage (profit)
- reliability of student's scholastic performance is lowered (Mareš, 2005)
Lack of academic integrity, AI (i.e. academic dishonesty) includes any of the following seven types of behaviour and they can apply to work in any medium (for example, written or audio text, film production, computer programs, etc. http://www.murdoch.edu.au/teach/plagiarism) (modified):

1	Inappropriate/ inadequate acknowledgement	Material copied word for word which is acknowledged as paraphrased but should have been in quotation marks, or material paraphrased without appropriate acknowledgement of its source.
2	Collusion	Material copied from another student's assignment with her or his knowledge.
3	Verbatim copying	Material copied word for word or exactly duplicated without any acknowledgement of the source.
4	Ghost writing	Assignment written by third party and represented by student as her or his own work.
5	Purloining	Material copied from another student's assignment or work without that person's knowledge.
6	Plagiarism	Intentional or unintentional use of another´s work or ideas, published or unpublished, without clearly acknowledging the source of that work or idea
7	„Cut´n Paste" technology	is used for restructuralization and stylistic modification of someone else´s text

Dishonest behaviour includes:
- giving or receiving information during an exam (exam includes tests and quizzes)
- using unauthorized materials like notes during an exam, unauthorized dissemination or receipt of exams, exam materials, contents, or answer keys
- taking an exam or writing a paper for another student or asking someone to take an exam or write a paper for you, this includes shared work and/or group-produced answers on take-home exams
- submitting the same paper - or different versions of what is substantially the same paper - for more than one course
- misrepresenting of fabricating written work, sources, research, or results as well as helping another student commit an act of academic dishonesty or lying to protect a student who has committed such an act

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CHEATING, PLAGIARISM AND COLLUSION

The Internet study material sources are often misused and plagiarized. The ethical border between honest and dishonest use is often indistinct. A student may get inspiration by someone else´s work, he can just control his own homework result, but he can also paraphrase or even copy the work of another person. The students are sometimes aware of their cheat, sometimes they argue that they "change" or "modify" the original text. Paraphrasing is identified as a "creative" act and subjectively rejected to be dishonest.

Plagiarism can take the different forms: the most evident is putting one´s name on someone else´s piece of work. Another well-recognized type occurs when material is cut and pasted from various sources (pastiche, patchwork). Less well-recognized type of plagiarism is the occurance of a complete paraphrase of material without reference or citations. A student can also copy an original work but make some changes, or add some additional material, or even reorganize the material and insert some „original" information to suit current purposes. More mixed examples of plagiarism occur when the student has combined material from a number of sources, especially when this material has been paraphrased, and again added own sections.
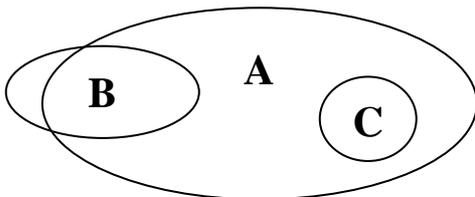
Three categories of plagiarism can be suggested:
- whole text from another source
- minor changes in style and syntax
- paraphrasing of words and ideas

Educators often cannot agree on what exactly constitutes academic dishonesty and how it should be effectively handled.

Plagiarism can be for example defined as "…the intentional or unintentional use of another´s work or ideas, published or unpublished, without clearly acknowledging the source of that work or idea [1]. Plagiarism represents a wide variety of behaviors, attitudes and motivation. It can be identified as **collusion** when a group of students co-operate, copy material from another student´s assignment with her or his knowledge.

Johnston (2003) and Bassendowski et Salgado, (2006) explain relations between cheating, plagiarism and collusion which can be described by this graph:

A = cheating
B = plagiarism
C = collusion

When we compare cheating, plagiarism and collusion we believe:
Cheating means intention to act dishonestly
Plagiarism can be intentional or unintentional
Collusion means active, intentional and obvious act of cheating done in co-operation with others

EXPERIMENTAL DATA

The students are natural economizers. They are interested in the shortest route possible through the study. That is why they ask questions such as: … "Will this be on the test?" Copying a paper sometimes looks as the shortcut through an assignment, especially when the student feels overloaded with work already. Students are faced with too many choices, so they put off low priorities. With so many things to do (both of academic and recreational nature), many students put off assignments that do not interest them. Many have poor time management and planning skills. Some are just procrastinators, while others do not understand the hours required to develop a good research paper, and they run out of time as the due date looms. Thus, they are most tempted to copy a paper when time is short and they have not yet started the assignment. Some students fear that their writing ability is not adequate. Fear of bad grade and inability to perform cause some students to look for superior product. Few students like the thrill of rule breaking. The more teachers condemn plagiarism, the more they can hardly wait to do it [3].

Our aim was to understand the way students gather study and assessment materials, "teachers references" and "study reports". Some information is easy to be found on faculty student web, some is not available in open sources. We used 2 methods: free interviews with students, members of a private FTP server and a questionnaire in a group of technical students - volunteers who were ready to answer "sensitive questions" on student cheating.

Activity of a private student FTP server was described and analyzed in our field study in 2006. The reason of foundation of this server was expressed by its promoter:"... to share intelligent and reliable study materials with good friends..., to found an "elite" source and work together...". The group of 10 students used distributed materials for information, inspiration and control. Every privy to the FTP both offered and used shared materials, no "parasites" were allowed in.

A qualitative study was based on the grounded theory approach. Data gained by interviews with students – the FTP users – were gathered and compared. Analysis was focused on these factors: principles of the FTP server operation, motivation of students to use it, ethical aspects, teachers´ role and attitudes towards information (mis)use, future visions.

In general, there are two information resources which have been used by students:
- assessment information
- study materials

The assessment information generally covers experience with the semester tests, exams and teachers. More details are

given about personality of the teacher, about his demands, favorite questions and exam timing. In the „teachers reports", the students learn if any tricks and cheating can be put to use. When a student reads this information he can adjust his study effort and be more self-possessed as he knows the expectations of teachers. Similar information is distributed to other students about the tests. Specific information about teachers guides the student in the current semester: he is adviced which course and teacher he should choose, he receives information on teaching quality of every teacher. Such information is nicknamed „teachers´ reference"[4].

"Study materials" – these are internet pages with student papers on different topics. These papers are assorted according to the university, faculty and course/subject. Papers on similar topics are sorted by time (chronologically). The most popular server (www.doStuduj.cz) is used by 20 000 users from the whole country (2006). An Internet user can find materials which are usable at 13 universities of the country. The usage is free of charge, students do not only take materials, but also insert materials.

Students – FTP users described usage of study materials for **copying** (e.g. laboratory protocols), **control** (students revise and control their own work) or **inspiration** (reading works of others helps the student to invent his own project). These three types of usage might be combined: a student gets inspiration for his own homework, then he copies the formal parts of his homework (submission formula, task specification, etc.), he works out his task realization and finally he controls his results. The FTP users declared they had not done much cut´n paste copying, and they hardly do any dishonest copying now. They declared that friendly atmosphere, communication and confidence in other members of the FTP server had other positive characteristics. They believed they could help each other, they supported each other and corrected possible mistakes. They also believed that their electronic co-operation had formative and educational influence and encouraged better performance.

After we gained some information from the FTP users we prepared a questionnaire with semi-structured items focused on student motivation to cheat and reactions of teachers. 72 volunteer students reported they had learned how to use the Internet during their secondary school studies. But they were informed how to (mis)use it for study purpose at the beginning of their university study. They said their first motivation to get informed about it was a plain curiosity. At first, motivation to copy someone else´s work was laziness, lack of time, task complexity, but it has been just lack of time recently. Motivation for inspiration and control was described as need for achievement. In our survey, the students are aware of the fact copying is not moral and that is why they try to avoid it. But at the same time they are convinced that sharing study materials for inspiration or control is honest as it just modifies their own study activities. The students are ready to quote laboratory works they used for task control, but they are afraid of teachers´ reactions. Some students doubted all home-works and seminar works had real value for their further expert development and they also declared they were not backed up by industrial practice.

The students mean the teachers˙ attitudes are different. Some of them agree that information sharing has some positive impact on students performance, some teachers refuse any kind of electronic co-operation of students, other do not care and some "pretend" cheating does not exist. If the students were teachers they would agree with inspiration and control activities of students and would disagree with plagiarism and collusion.

CONCLUSIONS

After this analysis basic factors which might influence dishonest use of the Internet study material sources were formulated, classified and suggested for further research. Some of these factors seem to be obvious, some still have to be studied (with some methodological difficulties), some need interdisciplinary co-operation.

1) University and its environment
size of the university, anonymity of its environment, other parameters of learning environment, demands of the study, big class load, teaching quality management, teacher workload, relevance of assignments, electronic equipment and its availability, academic integrity policy

2) Personality of academics
Human and intellectual qualities:
enthusiasm and interest in students, intellectual flexibility, consistency, credibility, diligence, technology knowledge
Pedagogical, presentation and organizational abilities and skills:
overestimation of his own subject/course, inadequate demands, quality of lecturing, objective assessment, student identity control, detail explanation on assessment, assessment strategy change.

3) Personality of students
Intellectual qualities:
mental giftedness, verbal skills, deep learning strategy
Emotional qualities:
temper, need for achievement, attitude to study, attitude to university, subject and teacher
Other characteristics:
age, poor time management, normality of personality

The problem of plagiarism is severe and some universities prefer to supress it by using paid services like "plagiarism.com" or by organising integrity seminars for students. Our view is that prevention is more important than repression. The teachers will have to modify assessment strategies and be more creative in testing students´ knowledge. If teachers modify and individualize their tests, students will have to write creative assignments and it will be much more difficult for them to plagiarize.

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